

Deal will prise open German power sector

By Judy Dempsey in Berlin

AN Anglo-American consortium is poised to break into east Germany's highly regulated energy structure, which will open up the region to more competition.

The consortium - led by Britain's PowerGen, NRG of Minneapolis and Morrison Knudsen of Idaho - is buying Mitteldeutsche Braunkohle (Mibrag), the large lignite open cast mines straddling the eastern state of Saxony-Anhalt. It is also buying a 44 per cent stake, or the equivalent of 400MW capacity, in a power generating plant being built at Schkopau, near Leipzig.

The deal, expected to be signed later this month, follows 18 months of negotiations

with the Treuhand agency charged with privatising east German industry.

The purchase of Schkopau is the main prize. Besides paying DM800m (£320m) for its stake, the consortium will have access to the power grid.

The grid is controlled by Veag, eastern Germany's big utility company, and effectively monopolised by west Germany's eight utilities. This structure restricts participation by outsiders. However, a spokesman for Veag confirmed yesterday that Veag would buy 400MW from Schkopau, which will give the Anglo-Americans indirect access to the grid. The consortium will also have authority to build or buy into more power blocks and sell its energy via the Veag grid.

"This is the beginning of the breaching of the energy monopoly in eastern Germany," an energy expert said yesterday.

He added the group was well placed to exploit the potential of Buna, large chemical works in Saxony-Anhalt which the Treuhand is due to privatise, and Leuna, the oil refinery in which Elf Aquitaine, the French oil company, holds a stake.

The deal's two-tiered price arrangement will be based on a down-payment and will be linked to the amount of lignite mined over several years. It is crucial for the Treuhand, as the sale of Mibrag sets a precedent for privatising the giant Laubag lignite fields in Brandenburg.

Poles' fear of future obscures past

POLISH voters seem poised to legitimise the discredited Communist party's re-named "social democratic" successors, only four years after the Solidarity movement inflicted a humiliating electoral defeat on the ruling Communist party.

If the opinion polls are to be believed, a clutch of left-wing parties with their roots in the communist past are expected to be the main gainers in Poland's third post-communist era elections on September 18.

The Democratic Left Alliance (SLD) led by Mr. Alexander Kwasniewski, a former communist who played a key role in negotiations with Solidarity four years ago, is within sight of overtaking Solidarity's main successor party, the Democratic Union (UD) as the largest single party.

The SLD's rural equivalent, the Polish Peasant Party (PSL), is achieving similar success in garnering votes from a disgruntled rural population which still makes up 40 per cent of the Polish electorate.

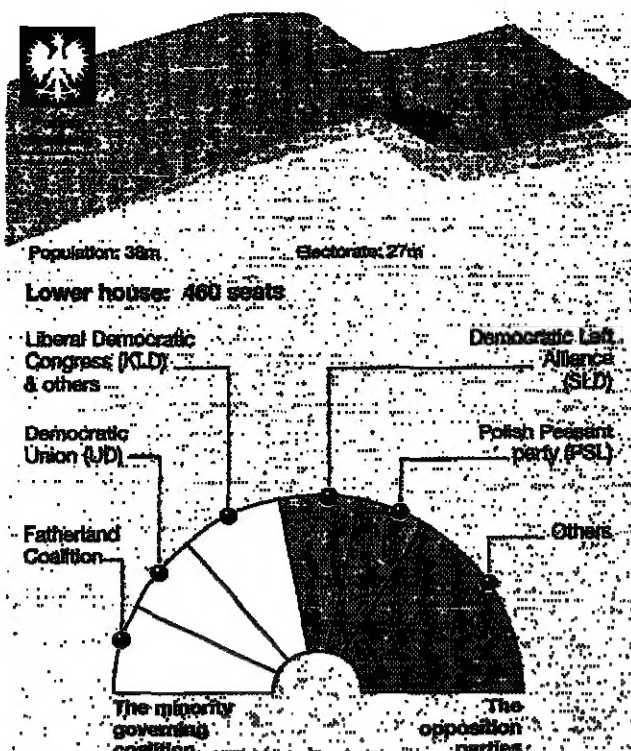
The strength of the left contrasts with confusion and division among the anti-communist right and the former Solidarity parties.

The implications for Poland's international standing and economic health provoked Mr. Leszek Balcerowicz, the non-party economist widely regarded as the author of Poland's painful but successful shock therapy reform programme, to warn this week that Poles should beware "the parties of printing easy money" and vote for those who made Poland's private enterprise revolution possible.

These include the free market Liberal Democratic Congress (KLD) led by Jan Krzysztof Bielecki, a former prime minister, which is most threatened by the leftward shift indicated by the polls.

The renewed attractiveness of the left reflects fears that, despite rising industrial production and predictions that Poland will achieve the highest rate of economic growth in Europe this year, unemployment will continue to rise beyond an already high 15 per cent.

The leftward tilt also comes as memories of past privations under the communists fade and are replaced by anxiety that the future will bring the



dismantling of the welfare net and limited access to free schooling and health facilities.

This is all in contrast to the last general elections in 1991 when it was the fractious right-wing parties, with their populist, inflationary economic slogans, which won enough of the protest vote to be able to form a short-lived government led by Mr. Jan Olszewski. Now these groups, which are suspicious of foreign investment and want to purge former com-

munists from public life, are also struggling - along with their liberal and free market KLD rivals - to cross the new 5 per cent barrier introduced to limit the proliferation of small parties which characterised the last parliament.

The strength of the PSL in the countryside underlines one of the ironies of post-communist Poland. The deeply Roman Catholic and conservative small farmers who made life so difficult for the communists now look back with nostalgia to the old days of meat shortages in the shops and guaran-

The outgoing parliament

Main coalition partners

Fatherland Coalition - Catholic church-backed bloc grouping right-wing parties, including the Christian Nationalist Union (ZChN), which formed a part of the outgoing cabinet. Loyal to the church; strong on issues such as banning abortion. Appears to have dropped hopes of getting growth through fueling inflation. Seats: 71. Share of 1991 vote: 8.7%.

Democratic Union (UD): Spring from the Solidarity movement's intellectual and white-collar supporters. Combines strong commitment to budget austerity and anti-inflationary policies with social democratic approach to issues such as division of church and state. Seats: 57. Share of 1991 vote: 12.3%.

Liberal Democratic Congress (KLD): Free-market party which has held many economic portfolios in previous governments and wants to continue with present economic policies. Seats: 62. Share of 1991 vote: 7.5%.

Main opposition parties

Democratic Left Alliance (SLD): Successors of the old Communist party and trade union allies. Promises to repair welfare net and improve health and education standards while easing present stringent budget policies only "slightly". Seats: 88. Share of 1991 vote: 12%.

Polish Peasant Party (PSL): Hundred-year-old farmers' organisation which enjoyed post-war period by collaborating with Communists. Promises budget support for farming and more protectionist policies. Seats: 49. Share of 1991 vote: 8.7%.

and the World Bank, and awareness of the dangers inflation would bring if monetary policies are eased too much.

What is significant is that the broad unspoken consensus in favour of continuing with market reforms means that the main outlines of the economic policies of the past four years are not directly challenged by any party.

Even the post communist SLD talks of the need to keep the budget deficit to around the 5 per cent of gross domestic product required by the IMF, although the rural PSL and the anti-communist Confederation for an Independent Poland (PKN), with their suspicion of the EC and foreign investment, talk of raising the limit to 7 per cent.

Neither of these parties is known for its economic sophistication and it is questionable whether they or their supporters are aware of the consequences of such an apparently small deterioration in Poland's hard-won fiscal rectitude.

No single party will emerge as the clear winner but as the political debate heats up, the Solidarity-based parties will strive to remind Poles of the miseries of their recent communist past.

Christopher Bobinski and Anthony Robinson on support for parties with communist roots

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that her popularity will help the party capture about 20 per cent of the votes, the most any party can hope for in Poland's still fragmented political scene.

The strength of personal support for Ms Suchocka has turned the election campaign into something of a "beauty contest" between the outgoing prime minister and President Lech Walesa, the once charismatic leader of Solidarity.

Mr. Walesa's new bid to secure a strong personal power base by promoting his so-called "Non-Party Movement for Reform" (BBWR) does not

during the presidential campaign two years ago that privatisation would leave every Pole \$10,000 better off. Mr. Walesa is no longer promising miracles.

This unwillingness to make rash promises is indeed a general characteristic of this campaign, partly at least because many of the politicians taking part have had the sobering experience of taking part in government over the past four years. This has given them direct knowledge of the constraints imposed by powerful external bodies such as the International Monetary Fund

Czech church expects no miracles in talks

By Patrick Blum in Prague

AS THE Czech Roman Catholic Church prepares to open talks with the government on the restitution of property nationalised by the Communists after 1948, Father Miloslav Fiala is optimistic. "I think we will find an acceptable compromise," he says.

But after four decades of communism, Fr Fiala, spokesman for the Czech Episcopal Conference, evidently does not expect miracles in the negotiations later this month on the return of its former earthly goods.

"Opposition [to restitution] has been relatively strong, and we must be prepared for a compromise," says Fr Fiala. "The Church has to realise that it will not obtain all the properties nationalised in 1948." The amount of property involved is considerable, with land representing about 1 per cent of all land in the Czech Republic. Some politicians have suggested the Church is being greedy in wanting all the land back, and they say restitution

should be limited to what is needed for the Church's liturgical activities.

Before the Communists took over in 1948 the Catholic Church owned about 169,000 ha of forests, 46,000 ha of agricultural land, 1,000 ha of rivers, lakes and reservoirs, 1,419 ha of gardens and parks, and 3,024 buildings, including educational facilities and workshops. No one knows the property's value at today's prices, though some estimates suggest it could be worth Kcs 60bn (£2bn).

Prague's cathedral is still in state hands. Although the churches themselves fell under state control, they were not formally nationalised. In 1991 the Church won back some monasteries.

Fr Fiala says opposition to full restitution, which was the Church's original objective, has come not only from left-wing politicians and parties, but also from within the liberal parties established after the 1989 revolution that ended communism. The issue has divided the

four-party government coalition led by the liberal free-market Civic Democratic party (ODS).

The ODS wants to limit restitution to property directly held by the state, and excluding commercial interests.

Fr Fiala argues the church must have an income to exist and to do its work. "We have practically nothing," he says, apart from revenue from educational activities, proceeds from small parcels of land returned to monasteries in 1990-91, and support from religious orders abroad. Income from forestry alone could provide about Kcs50m - Kcs70m annually.

Last week, Prague Archbishop Miloslav Vlk said restitution of Church property was not "the most important reason why the Church is here".

The Church had been without property for 40 years and could continue that way if necessary, but the property would ensure its independence and enable it to fulfil its "special role" in society.

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NEWS: INTERNATIONAL

Moussa 'optimistic' on accord

By Tony Walker in Cairo

"I WANT to assure you that this is a baby for sure, but when it will be born depends on a lot of things, but born, it will be," Mr Amr Moussa, Egypt's foreign minister, said yesterday as he spoke of progress towards a Palestinian-Israeli peace in which his country has played a considerable behind-the-scenes role.

While Mr Moussa did not wish to claim credit for having facilitated negotiations between the Palestine Liberation Organisation and the Israelis, there is no doubt that Egypt is assuming crucial importance in helping to deliver an historic agreement between once bitter foes.

Mr Yasser Arafat, the Cairo-born Palestine Liberation Organisation leader, has visited Egypt three times since details emerged late last month of a ground-breaking agreement with Israel, using the Egyptian capital as a staging point for his forays into the

wider Arab world.

In Cairo yesterday, he held yet another round of talks with Egyptian officials, including President Hosni Mubarak, before heading off to Oman in the Gulf to drum up support.

Mr Arafat had been unwelcome in almost all the Gulf states since his embrace of Iraqi President Saddam Hussein during the Gulf crisis of 1990-91.

Mr Arafat's stance alienated his most important paymasters, the Saudis and Kuwaitis.

Mr Moussa, who had participated in private talks yesterday with Mr Arafat, said in an interview he was "cautiously optimistic" that the agreement on mutual recognition could be concluded by the weekend ready for signature in Washington next week.

The Americans have nominated next Monday for the signing.

"We see good intentions on both sides," he said. But "formalities are formalities, and technicalities are technicalities, so discussions continue."

The Israelis are pressing the Palestinians to give specific undertakings to revise the PLO charter which, among other things, calls for the elimination of the State of Israel. Palestinian officials say they will give these undertakings, but formal revision of the PLO covenant would require approval of the Palestine National Council, or parliament-in-exile, the PLO's supreme policymaking body.

Egypt, the only Arab state to have made peace with Israel - the two countries signed their peace agreement in 1979 - is providing the benefit of its experience in negotiating detailed agreements with the Jewish state. Interestingly, several officials providing counsel to Mr Arafat were intimately involved in the Camp David process following late President Anwar Sadat's groundbreaking visit to Jerusalem in 1977.

Among these officials are Mr Moussa himself who was head of the international department of the Egyptian foreign ministry at the time of Camp David, and Dr Osama al-Baz, who was a key aide to Mr Sadat and is

now Mr Mubarak's political adviser.

The two men were among a small number of Egyptian officials who were aware of developments from an early stage of the secret Palestinian-Israeli negotiations in Norway.

Mr Moussa is careful in describing Egypt's role to date, saying merely: "The Palestinians I would say trust our judgment. Our opinion is given honestly with no ulterior motives. We provide advice when needed."

While the minister is careful about claiming credit for positive developments, he is less coy about his own country's interest in a successful outcome. Egypt is anxious that other Arab countries should join it in making peace with Israel. It also believes that peace between Israel and its neighbours is the best antidote to the worrying spread of Islamic extremism throughout the Arab world. Egypt itself has been a particular target recently.

Describing Camp David as the first stage in a long process aimed at calming the region, the Madrid conference of 1991 as the second, and the pro-



Egyptian foreign minister Amr Moussa: behind-the-scenes role

posed mutual recognition between Israel and the PLO as the third, Mr Moussa says: "The major instability in this region emanates from this particular problem. If it is settled it will contribute to the amelioration of the general climate, and it will militate in favour of a more stable Middle East."

Revenge of Kenya's Arab 'squatters'

Leslie Crawford on trouble in an African paradise

AS THE dhow sailed towards Lamu, an ancient Arab settlement on the Kenyan coast, the damage of recent riots came into focus: buildings on the waterfront blackened by fire and exposed to the elements without their traditional thatched roofs; donkeys scavenging in the rubble; groups of young men as tall as flintlocks, still defiant after the troubles.

For more than a year, Lamu's 15,000 inhabitants have endured bandit attacks on the road to Malindi, their main link to the outside world and the island's economic lifeline. Eight people have been killed, causing bus companies to suspend services along the route.

One Friday in August, after midday prayers, several hundred Muslims marched to the town square with the intention of petitioning the district commissioner for greater police protection on the Malindi road. He refused to meet them, and ordered police to disperse them.

Nobody will say who started the fire. But the customs building and other offices were torched, and the strong south-east trade winds swept the flames over the Standard Chartered Bank, seafood restaurants, shops and Pele's Inn, the oldest hotel on the island.

Kanu Hall, headquarters of Kenya's ruling party, was also set ablaze. It was the greatest destruction Lamu had seen since a war against the rival city-state of Mombasa in 1810. Hundreds of tourists were ferried to the relative safety of the mainland. They have not returned.

"The district commissioner treated us like animals," says Mr Karim Rajan, a local guest-

ing alarm as their land is parcelled out to powerful politicians, hotel developers, or resettlement schemes for mainland tribes.

"We are regarded as squatters, even though we have been here for 1,000 years," says Mr Abdul Nassir, a soft-spoken carpenter who has emerged as the leader of Lamu's Muslims. "All our attempts to get title deeds for our farms have been rebuffed."

As resentment grows, the coastal strip from Lamu to Mombasa is becoming fertile ground for radical Moslem groups. "The up-country people used to call us sleeping

Kenya's lawless frontier with Somalia has become a breeding ground for radical Moslem groups

dogs; now they call us terrorists, fundamentalists," says Sheikh Khalid Salim Balala, one of the founding members of the 18-month-old Islamic Party of Kenya.

Sheikh Balala has endured six spells in prison for his inflammatory speeches and calls for political strikes in Mombasa. He is a bit of an embarrassment to Kenya's mainstream Moslem leaders, and while many distrust his motives, he is winning a growing number of followers with his demands for Moslem political power.

"We are an Islamic nation in Kenya - one third of the population - but we are a dead community," Sheikh Balala says. "Our leaders have been docile and incompetent; they have done nothing for us. We deserve a greater presence in government, in academia, in all walks of life."

He does not shy away from being called a fundamentalist, but denies his party is being financed by hardline Islamic groups abroad.

The government in Nairobi thinks otherwise. It has refused to register the party as a legal organisation, calling it a threat to the established political order.

Kenya's lawless frontier with Somalia has also become a breeding ground for radical Moslem groups since the arrival of aid agencies from the Gulf. Officials and government officials say many of these relief organisations are merely fronts to promote Sharia law among the thousands of destitute refugees in the border camps. The fundamentalist government in Sudan, recently placed on Washington's list of terrorist states, is also believed to be involved.

"We are treated like third-class citizens just because we have Arab blood," says Mr Mohammed Abubakar, the deputy manager at Standard Chartered in Lamu. Muslims, he says, are barred from holding top government jobs or senior academic posts. While local government is run by "up-country" officials, the coastal provinces have been neglected. Not a single state school has been built on the coast since independence 30 years ago. And the coastal people have watched with increas-

ing anger the government's failure to provide basic services, such as health care, education and employment. "The government is doing its utmost to prevent Muslims uniting along the coast," says Mr Nassir. "But if there are no changes, and the government continues to respond to our demands with weapons, they will be responsible for the consequences."

Not a single state school has been built on the coast since independence 30 years ago

house owner. The DC is hated for his heavy-handedness, but even more so because he is a non-Muslim and a "foreigner", a political appointee who comes from Kenya's hinterland. He has taken to sleeping on a navy patrol boat.

The riots were not only about banditry. All along the coast, Kenya's Swahili people, Muslims of Arab-African descent, have been nursing a growing litany of grievances against the government in Nairobi.

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Japan admits economy at 'standstill'

By William Dawkins in Tokyo

JAPAN'S official economic forecaster has downgraded its assessment of the state of the economy, prompting calls from within the coalition government for a cut in the official discount rate.

The Economic Planning Agency, which has held a stubbornly sanguine view of the prospects for recovery this year as most other public and private sector forecasters have sharply downgraded their expectations, yesterday admitted that the economy was at a "standstill" and "stagnating".

This indicates serious official concern that the downturn may have hit bottom twice before a recovery, though Mr Morihiro Hosokawa, the prime minister, yesterday chided the agency for being too optimistic. The agency maintained in June that the downturn had hit bottom and two months later said the economy was at "somehow of a standstill".

Economic problems have quickly overtaken plans to reform Japan's creaking political system, to occupy 80 per cent of Mr Hosokawa's time, says a government official.

According to Mr Hirohisa Fujii, finance minister, there is no consensus among cabinet members on when recovery might come. The EPA is nevertheless sticking to its forecast of 3.3 per cent growth in gross national product this year. That compares with 1.5 per cent in 1992 and is far more optimistic than the market consensus of growth between 0.3 per cent and 1.5 per cent for this year.

Mr Yasushi Mieno, governor of the Bank of Japan, said there were no clear signs of

recovery. But he refused to be drawn on a widely expected imminent cut in the official discount rate, already at a post-war low of 2.5 per cent, beyond saying that the bank was carefully watching the effect of the yen's rise on business confidence.

The markets believe a rate cut is possible after Friday's release of the central bank's latest survey of business confidence.

If not, the bank could wait for the basic outline of the government's forthcoming economic stimulation package, expected around September 20. Exact details of the package will be the result of tough negotiations among the seven coalition members, though the government has already announced that plans to cut official red tape and costly business regulations will form the centrepiece.

Regulation has broad coalition support in principle, though the left-wing Social Democrats, the largest coalition party, is anxious not to upset small retailers, an important socialist constituency.

Social Democrats are more seriously out of line with the rest of the coalition on possible income tax cuts, as favoured by Mr Hosokawa. Mr Ichiro Ozawa, the former LDP power-broker who exerts a strong behind-the-scenes influence on the coalition, argues that any income tax cuts must be compensated by rises in consumption taxes.

The Social Democrats oppose a rise in consumption taxes and are said to be among the toughest bargainers in a coalition which would lose its parliamentary majority without them.

SDP poll could ruffle coalition

By Robert Thomson in Tokyo

JAPAN'S Social Democratic party faces a disruptive election for a new chairman that could destabilise the seven party-coalition government, in which it is the largest group.

The apparent decision of Mr Sadao Yamahana not to stand for re-election later this month comes after he has forced the party to adopt a new policy on South Korea by visiting that country recently.

Until now the SDP, formerly the Japan Socialist party, has maintained close ties to totalitarian North Korea. Mr Yamahana was the first SDP leader to visit Seoul, angering left-wing members of his party. Mr Yamahana is a member of a moderate faction which has attempted to push the SDP to reform its policies over the past few years, and he has taken advantage of his time in the month-old government to make changes in spirit if not wording to past policies.

If Mr Yamahana is not a candidate, he will back another moderate representative in a party poll, scheduled for September 18, in the hope of continuing reforms intended to broaden the party's popularity.

Serving in the coalition government of Mr Morihiro Hosokawa has prompted the SDP to blunt its past opposition to the use of nuclear energy and even to suggest that it accepted a foreign policy little changed from that of the conservative Liberal Democratic party, which ruled for 38 years. However, the party's growing pragmatism raises the possibility



Yamahana: standing down

that members loyal to traditional hard-line policies will split to form a new party - a move which could bring down the coalition government.

Mr Hosokawa said the dispute within the SDP was an internal matter that did not directly concern the government, though "we have to wait and see what happens". Other government officials said they were confident that the SDP would remain a coalition member, regardless of the leadership contest's outcome.

But the likely departure of Mr Yamahana, who has said he will resign in order to take responsibility for the party's poor showing in July's general election, raises doubts over whether he will continue to serve as the cabinet minister responsible for political reform.



Imelda Marcos follows military pall-bearers carrying the coffin of her late husband - in Laoag City yesterday

MARCOS BODY RETURNS TO SPARSE CROWDS

By Jose Galing in Laoag City, Philippines

LEAN CROWDS showed up at the homecoming yesterday of the body of Mr Ferdinand Marcos, the former Philippine strongman who seven years ago fled to Hawaii after being ousted in a popular revolt against his regime.

The body was in a sealed metal casket that has remained unopened. It will be seen only as it is laid to rest this weekend in a glass case at the newly constructed mausoleum at the Marcos residence in Laoag City.

About 3,000 people were at the airport in Laoag City, the capital of Mr Marcos's home province of Ilocos Norte in the northern Philippines, when the chartered

jet carrying his body landed. About 5,000 attended an hour-long mass at St William's Cathedral where the casket was brought from the airport. It was later placed in front of the provincial capital building.

There were no state honours. A group of 21 retired generals acted as pall-bearers. They executed a simultaneous salute in lieu of the official 21-gun salute. Mr Marcos's widow Imelda and his two daughters, Imee and Irene, led the welcoming party at the airport. His son Ferdinand Jr had fetched the body from Hawaii.

It was the first time since their 1986 escape from Manila that the Marcos family was together. After their flight,

the Marcos children went their separate ways in other countries while the parents stayed in Hawaii. Even when Mr Marcos was dying some of the Marcos children avoided travelling to Hawaii for fear of being arrested in connection with criminal suits filed against the family in US courts.

Mr Marcos died in September 1989 of cardiac arrest following complications from kidney, lung and heart ailments. Mrs Marcos returned to the Philippines in November 1991 and was among the seven candidates in the May 1992 presidential election that was won by Mr Fidel Ramos, former army chief and defence secretary. Mrs Marcos finished fifth.

HIV infects 1m women this year

By Olive Cookson, Science Editor

THE HIV virus will infect more than 1m women throughout the world during 1993. By the year 2000, 13m women will have been infected and 4m of them will have died of AIDS, according to estimates yesterday by Dr Michael Merson, head of the World Health Organisation's global programme on AIDS.

"A decade ago women and children seemed to be on the periphery of the AIDS epidemic," Dr Merson said at an international conference in Edinburgh on HIV in children and mothers. "Today they are at the centre of our concern."

As more women become HIV-positive, the number of infections in their babies rises. WHO says on average a third of infants born to infected mothers are infected. To date 1m babies have been infected, of whom half developed AIDS.

In industrialised countries, HIV transmission is still often through homosexual contact or drug abuse, but in developing countries heterosexual transmission has been predominant since the start of the AIDS epidemic 10 years ago. Dr Merson said women becoming infected with HIV now outnumbered men by six to five in sub-Saharan Africa.

He suggested several courses of action to protect women, including "top priority" research to develop a safe "vaginal viricide" - a virus-killing chemical that would prevent infection during sex.

Tax move stuns Indian bourses

By R C Murthy in Bombay

INDIAN bourses yesterday fell sharply for a second day, in reaction to a freeze imposed by internal revenue authorities on shareholdings valued at more than Rs1.5bn (\$31m).

On the Bombay Stock Exchange, the country's largest, the index of 30 leading shares fell sharply by 87.67 points to 2,533.53 making a two-day decline of 130.53 points or 4.9 per cent. Investors

stayed clear of making purchases to avoid being saddled with losses in a falling market.

The income tax authorities at the weekend conducted searches inquiring into 234 people in Bombay, 132 in Calcutta and an unspecified number in other centres on a tip-off they were trading on behalf of Mr Harshad Mehta, one of the central figures in the Rs50bn Bombay securities scandal.

Traders fear the stock

markets will come to a standstill - recalling the events in May last year, when the custodian appointed by the government declared all the shares handled by Mr Mehta as "frozen".

The BSE has banned short sales and all sales will have to be against cash. A 15 per cent cash payment has been made obligatory on fresh purchases. The internal revenue authorities are expected to complete investigations by the weekend.

Zhu predicts 13% economic growth

CHINA'S economy is likely to grow at 13 per cent again this year despite measures to prevent overheating, according to Mr Zhu Rongji, vice-premier and central bank governor, Reuters reports from Nusa Dua, Indonesia.

Mr Zhu told a meeting of business executives in Bali by video-telephone link that the government believed it had been able to withstand and control changes in the macro-economy.

He said growth in 1993 gross national product was likely to average 13 per cent, compared with close to 14 per cent for the first six months of the year and 13 per cent in all of 1992.

According to some newspapers in Beijing, this year's growth target was 10 per cent.

Mr Zhu said macro-economic controls and regulatory

measures introduced in June to provide an environment for sustained high growth appeared to be working.

The programme was designed to slow down a runaway economy that posted 25.1 per cent growth in industry and 61 per cent growth in fixed asset investment in the first half of the year.

"Early signs are that these measures are yielding positive results. We expect to see more good signs in the coming months," Mr Zhu said.

"In the first half of this year there was an excessive increase in the scale of investment. This is so because we are in a transition and some of the defects of the old system have not been eliminated, while some aspects of the new order are not yet fully implemented."

Taiwan's China negotiator quits

TAIWAN'S chief negotiator with China said yesterday he would resign after bitter disputes within the Taiwan government over policy towards Beijing. Reuters reports from Taipei.

"I cannot make use of my ability under this environment. It will be a waste of my time and have a negative impact on improving relations between the two sides," said Mr Cheyne Chiu, secretary general of Taiwan's Straits Exchange Foundation.

Local media quoted Mr Chiu as saying that he would quit at a foundation board meeting in November. The foundation handles talks with China in the absence of formal diplomatic contact.

Mr Chiu, who became secretary general in March, handled intensive negotiations at a meeting between China and Taiwan in Singapore in April, the highest-level contact between the two rivals since the end of the Chinese civil war in 1949.

He was known for a liberal attitude towards China, pledging to "tear down the psychological Berlin Wall" and suggesting Taiwan consider lifting its ban on official contact.

Taiwan's Securities and Exchange Commission, seeking to slow a flood of investment into China, yesterday formally banned companies from using issues of stock and convertible bonds to fund mainland projects.

Rao and Li Peng ease border row

INDIA and China moved yesterday to end a 30-year border dispute, vowing to cut troops numbers on their frontiers and to maintain peace in the region. Reuters reports from Beijing.

A joint statement hailed the pact as a landmark in relations. But differences remain over how many soldiers each should withdraw from the border area where they fought a war in 1962, Indian officials said.

The agreement, signed after two days of talks between Mr PV Narasimha Rao, the visiting Indian prime minister, and Mr Li Peng, Chinese premier, prepares the ground for a final settlement of the border issue, the officials said.

"The two countries have agreed to undertake a series of confidence-building measures, including the reduction of military forces deployed along the India-China border," a joint statement issued by the Indian embassy said.

"Pending a boundary settlement, India and China have agreed to respect and observe the line of actual control (LAC)." The line has separated the troops of the two nations since the brief 1962 war.

"This landmark agreement lays down the framework for maintaining peace and tranquillity along the LAC," the joint statement said.

Indian opposition leaders have given a rare unanimous mandate to Mr Rao to resolve the dispute along the 4,000km (2,486 mile) border.

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millions of pounds.

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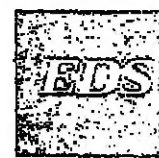
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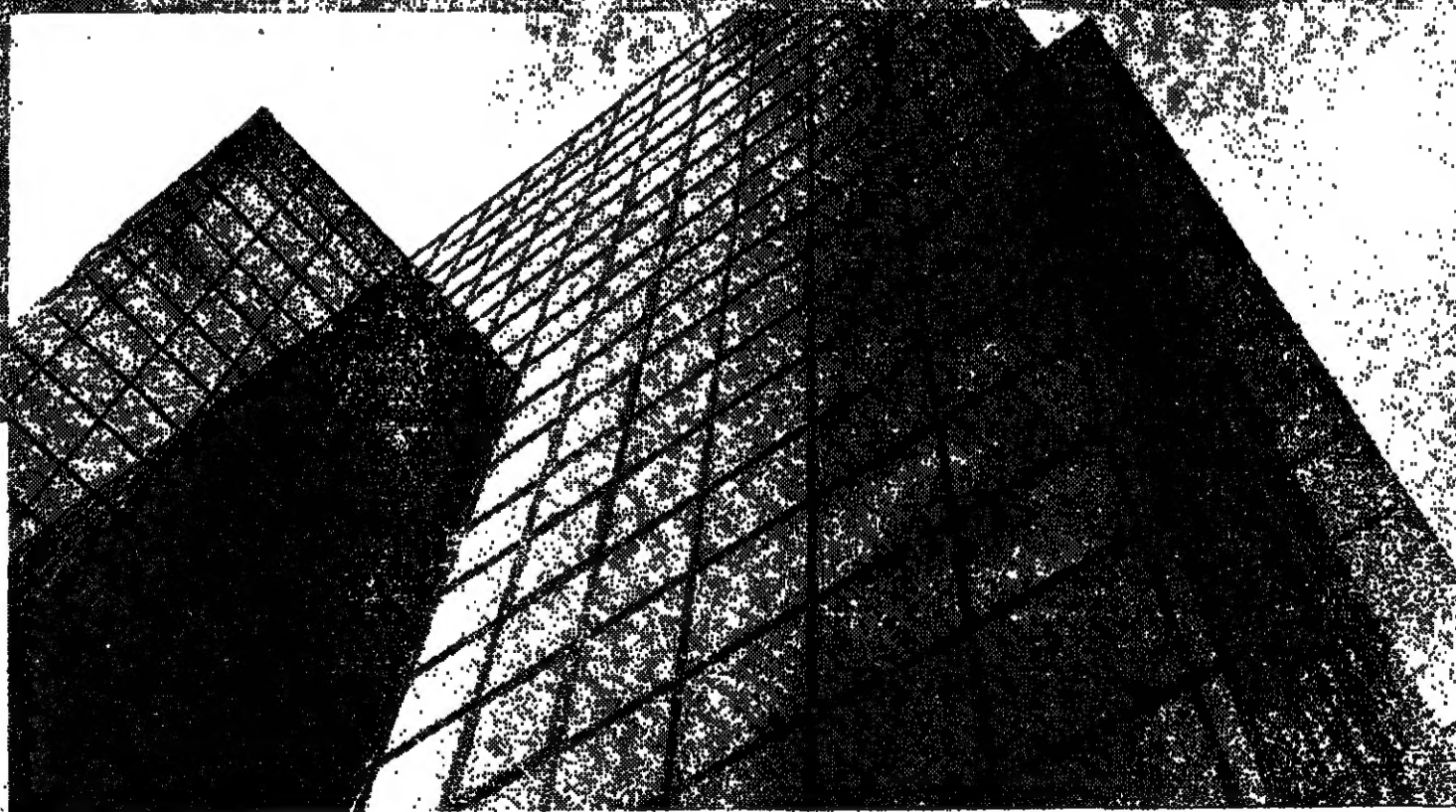
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FINANCIAL TIMES WEDNESDAY SEPTEMBER 8 1993

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Indeed, the latest technology

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to find those that suit the needs of your company.

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The review, which promises \$100bn (£71.5bn) of savings over five years and a 12 per cent reduction in the size of the federal workforce, seeks to defuse the conflicts with Congress that have hampered implementation of previous recommendations by arguing that it would change not what government does, but how it does it.

It also claims to be different because it is based on the ideas of government employees themselves, not on outside nostrums.

The National Performance Review offers a list of specific recommendations aimed at cutting wasteful spending, streamlining bureaucracy, improving customer service, overhauling federal procurement rules and rebuilding the federal personnel core.

Suggestions include:
● Consolidate the Agriculture Department's 42 agencies into 30 and close one in 10 of its

- Allow government agencies, including the Internal Revenue, to use private debt collectors and accept payments by credit card.
- Eliminate the 10,000-page Federal Personnel Manual by September next year and replace it with general principles which would allow managers to hire, fire and reward excellence.
- Lift the level below which agencies can make purchases without special authorisation from \$25,000 to \$100,000.
- Budget over two years instead of one.
- Reduce the ratio of managers to one for every 15 employees, instead of one for every seven employees.

But Washington sceptics say that even if the Gore report is different from President Richard Nixon's Ash Council or President Ronald Reagan's Grace Commission - and it is certainly better written than those were - it is likely to suffer the same fate as they did.



Gore (left) and President Bill Clinton: "Where it says the president should, the president will."

Others believe, however, that public opinion, stoked by Mr Ross Perot's presidential cam-

paign last year, is so eager for an attack on waste in government that Congress will be

forced to take up Mr Gore's challenge. Many of the recommenda-

tions can be implemented at least in part by presidential order, and President Bill Clin-

report and where it says the president should, the president will," he said yesterday at a White House ceremony to unveil the report.

Other elements, however, would require legislation in Congress; some of them have been recommended many times before, and large political interests have prevented their implementation.

Even though Mr Gore avoids attacking some of the politically sensitive subsidy programmes that the Grace Commission included in its recommendations, a report that would cut 252,000 jobs is sure to run into opposition, at least from the civil service trade unions.

White House officials were quick yesterday to emphasise that some of these jobs are not even filled at the moment, and that most of the cuts could be achieved through attrition.

Many of Mr Gore's other suggestions will run against Congress's insistence that it should have close oversight of

Democratic majority in the Senate, yesterday said he supported the proposed two-year budget cycle, the idea is a red rag to congressional bulls such as Senator Robert Byrd of West Virginia, the chairman of the appropriations committee which controls spending.

Mr Mitchell acknowledged that other reports had come and gone, but said that "doesn't mean we should stop trying".

The reality is this is a very large enterprise, growing larger, and it has to be constantly reviewed," he said yesterday.

On the other side of the political aisle, Senator Robert Dole, the Republican leader, gave a cautious welcome to the Gore report, while complaining that his party had not been involved in its preparation.

"We'd like to take a look at it and see how much smoke and mirrors there are, how much real change there is. And if it's a good change, he'll have a lot of Republican support," Mr Dole said in a television interview.

Brazil plans to curb inflation

By Angus Foster in São Paulo and John Barham in Buenos Aires

BRAZIL is next week expected to introduce further measures aimed at curbing inflation, now running at an annualised rate of more than 2,000 per cent.

Mr Fernando Henrique Cardoso, the finance minister, is due to give a television address next Tuesday, just over three months after he took over the job, in which he is expected to give a comparatively upbeat assessment of Brazil's growth prospects for this year.

He may also confirm some structural changes such as the separation of accounts between the treasury and central bank, designed to make financial movements between the two institutions more transparent.

Mr Cardoso has repeatedly claimed he will not launch any economic "shock"

plans before fiscal reforms are in place to deal with the country's structural economic problems.

However, some economists believe Mr Cardoso and his economic team are working on such a package.

Suspensions have been raised by the recent appointment of Mr Andre Lara Resende as principal foreign debt negotiator and Mr Persio Arida as president of Brazil's development bank. Both men were involved in the now discredited 1993 Cruzado plan, which involved a price freeze and the introduction of a new currency.

The presence of President Carlos Menem of Argentina and Mr Domingo Cavallo, his economy minister, at Brazil's annual independence celebrations yesterday has further fuelled the speculation.

Ahead of meeting Mr Cavallo, Mr Cardoso said Brazil would not follow Argen-

tina and peg the currency to the dollar to curb inflation.

The Brazilian and Argentinian leaders were expected to discuss progress towards eliminating trade barriers within Mercosul, the regional grouping which links the two countries with Uruguay and Paraguay.

They will also discuss trade frictions caused by a rapid increase in Brazilian exports to Argentina. Argentina has accused Brazil of favouring its companies with covert subsidies and criticised it for failing to stabilise its economy. Mr Cavallo denies that the Argentinian peso is seriously overvalued.

Argentina has resorted to an array of mechanisms to slow the onslaught of Brazilian imports and Brazil has now threatened to retaliate. However, tension comes against a background of rapidly rising trade between the two.

Second crisis in Guatemala

By Edward Oribe in Guatemala City

GUATEMALA has been plunged into its second political crisis in three months as a divided congress waits for a ruling from the constitutional court to determine whether a revolt against the congressional leadership is legal.

The crisis was precipitated on Sunday evening when a session of congress, called to implement a purge of members accused of corruption, descended into fistfights and bottle throwing, leading Mr José Lobo Dubon, the Christian Democrat president of congress, to declare the session suspended.

However, a group of 65 members of congress defied the suspension to elect a new congressional president and directorate after alleging that Mr Lobo had abandoned his post.

Mr Alfonso Cabrera, secretary general

of the Christian Democrats, called the removal of Mr Lobo and the rest of the 12-member congressional directorate "a kind of coup d'état within congress".

On Monday evening Mr Lobo, who still considers himself president of congress, clashed with opponents as he headed for his office. One of his bodyguards allegedly struck a congressman with the butt of his pistol.

Now the congress, bitterly divided over the issue of corruption, finds itself with two presidents and two directorates. It was not clear which directorate would preside over the congressional session due to be held later yesterday, but it was expected to be unruly.

The move for a congressional purge followed a call last month by President Ramiro de Leon Carpio for the voluntary resignation of all 116 congressmen.

human rights ombudsman, was elected by congress on June 6 after a constitutional crisis triggered by a failed attempt by former President Jorge Serrano to seize authoritarian powers. Mr de Leon's election raised hopes that he would promote a clean-up of state institutions, which are generally perceived to be endemic corrupt.

However, Congress divided into two camps. On one side 75 congressmen are allied to the Instancia Nacional de Consenso, a coalition of political parties, private business, and popular organisations which forced a return to democratic government in June.

The Instancia has produced a list of 16 congressmen whom it considers to be most in need of purging. The list contains five Christian Democrats, including Mr Lobo, but does not include any members from the five parties in the Instancia.



A Bold New Spirit

Cavallo visits London for talks

By John Barham in Buenos Aires

MR DOMINGO CAVALLLO, Argentina's economy minister and architect of one of the world's most surprising economic miracles, arrives in London this morning for a three-day visit.

Mr Cavallo, the first Argentine cabinet minister to make an official visit to Britain since the 1982 Falklands conflict, will meet Mr Kenneth Clarke, the chancellor of the exchequer, Mr Douglas Hurd, the foreign secretary, and Mr Eddie George, governor of the Bank of England.

The visit confirms the rapidly improving ties between the UK and Argentina since President Carlos Menem took office in 1989 and adopted pro-western foreign policies and free market economics. Mr



Cavallo: to give lecture



Hurd: improving ties

Cavallo became economy minister in 1991 and rapidly transformed Argentina into one of the world's fastest-growing economies. However, the unresolved dispute over the Falklands - which Argentina still claims - means that no date is

likely to be set soon for a visit by Mr Menem.

As well as meeting UK government officials, Mr Cavallo will give a lecture at the London School of Economics and a speech at the Confederation of British Industry. He will also

chair a seminar with potential investors at Baring Brothers, the merchant bank with a long, if turbulent, history of business with Argentina.

Britain has shown growing interest in Latin America as economic reforms across the continent create new trade and investment opportunities. British banks and companies, notably British Gas, have been active in Argentina's privatisation programme.

Mr Cavallo's arrival in London follows a flurry of visits by senior British ministers. Earlier this year Mr Hurd and Mr Michael Heseltine, trade and industry secretary, visited Buenos Aires. Mrs Gillian Shephard, agriculture minister, arrives in Argentina on Saturday for a brief official visit and Mr Guido di Tella, Argentina's foreign minister, will visit London in November.

Software and hard feelings

MICROSOFT, dubbed the "bully" of the computer software industry by some competitors, is crying foul. Under investigation for alleged anti-trust violations in the US and the EC, the company claims it is the victim of a smear campaign.

Competitors "are spreading lies about us", Mr Bill Gates, Microsoft chairman and chief executive, told industry analysts at the company's Redmond, Washington, headquarters recently.

Within the software industry he is unlikely to find much sympathy. Microsoft dominates the world market for personal computer software and is renowned for its aggressive marketing tactics. For years Microsoft has shrugged off as mere envy mounting complaints from competitors alleging unfair business practices.

But now, with the US Justice Department and EC competition authorities digging through its books, Microsoft is becoming increasingly sensitive to criticism from competitors, particularly Novell, the leading supplier of PC networking software, which it views as the instigator of its problems with anti-trust authorities.

"Novell is trying to make government agencies suspicious of the way we do business, trying to paint a negative picture of Microsoft," said Mr Bill Neukom, Microsoft's chief counsel.

Louise Kehoe and Geof Wheelwright on rivals Microsoft and Novell

Novell played an active role in supplying information to the US Federal Trade Commission during its three-year anti-trust investigation of Microsoft. It also promoted the transfer of the case to the US Justice Department when the FTC reached a deadlock over whether to take action; and it filed complaints against Microsoft with the EC competition authorities.

Now Novell has revealed details of a previously secret 1992 attempt by Microsoft to buy its tormentor during the FTC's anti-trust probe, which shows another dimension to the animosity between the two companies.

According to Novell, Mr Gates contacted Mr Ray Noorda, Novell chairman and chief executive, in July 1991, days after Novell had announced plans to acquire Digital Research, a small developer of personal computer operating systems, to discuss a merger. As an independent company, Digital Research presented no threat to Microsoft's domination of the PC operating system market, but as part of Novell it might have become a serious challenger to Microsoft's cash cow, MS-DOS, the most widely used PC operating system program.

According to Mr David Bradford, Novell's chief counsel, Mr Gates stipulated that the newly acquired Digital Research could not be part of any deal.

Taking Microsoft's approach at face value, Novell engaged in negotiations. And in what turned out to be a critical mistake, it put Digital Research on the back burner for the duration of the talks, suspending its plans to promote the company's DR-DOS system in competition with Microsoft's MS-DOS.

In late February 1992, Microsoft presented a written offer to Novell to acquire the company for more than \$12bn (£7.9bn). The following month, Microsoft met Novell's board to discuss the offer. A day later, Novell learned from press reports that Microsoft had announced its acquisition of another software company, Fox Software. Stunned, Novell called off the talks and aborted the deal, according to Mr Bradford.

Novell alleges that Microsoft was not negotiating in good faith and that its ulterior motive may have been to remove the threat of competition in the operating system market.

Microsoft offers a very different and equally plausible interpretation. At first, according to

Microsoft, Mr Gates saw the potential for a "win-win" merger of the largest PC software company with the largest supplier of PC networking software. Customers would have benefited from improved compatibility between the companies' software products, which are frequently used together.

Digital Research had nothing to do with Microsoft's interest in merging with Novell, Mr Neukom insists. In fact it created a potential impediment to the deal.

With regard to the Fox Software acquisition, Mr Neukom says that Microsoft "had no intent to hide anything from Novell", but that the two deals were quite separate. Fox is a developer of data-base management software that is only tangentially related to Novell's networking products.

Was Microsoft negotiating in good faith? "Our letter of intent demonstrated a certain seriousness of purpose," Mr Neukom said. Whatever the intent, the effect of the protracted negotiations was to delay Novell's efforts to bring a competitive PC operating system, based on Digital Research technology, to market. Only after the talks ended did Novell begin its efforts to compete more aggressively with Microsoft, so far with little success.

Novell alleges that the delay, combined with Microsoft's monopolistic licensing of MS-DOS, has cost it dearly, estimating its damages at \$3bn.

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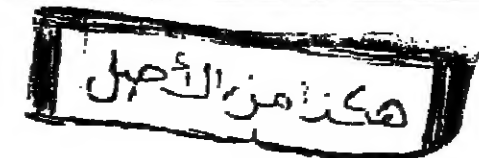
George Graham looks at Vice-President Al Gore's plans to overhaul US bureaucracy, and the obstacles ahead

VICE-PRESIDENT Al Gore is not the first person to set about overhauling the US federal bureaucracy, and scepticism about the results of reports such as his National Performance Review is now deeply

Reinventing government is not easy
12,000 field offices.
● Close all the regional offices of the Housing and Urban

you promised yesterday that he would do his part.
"There are a lot of places in

the operations of the administration; he urges, for example, that Congress give agencies broader authority to spend the money allotted to them, instead of putting in line-by-line restrictions on their spending, and also asks Congress to



Commission agrees to increase EC 'set-aside' compensation Moves to pacify farm lobby

By David Gardner in Brussels

THE European Commission yesterday agreed to increase the amount of compensation for EC farmers for land they have taken out of production. The move was seen in Brussels as a further attempt to pacify the French farm lobby, and to make it easier for France's government to accept the international farm trade accords on which the future of the Uruguay Round now hangs.

Paris at the weekend renewed its threat to veto last year's Blair House deal on farm trade between the US and the EC, a linchpin of any future deal on world trade reform.

France only agreed in June to accept the oilseeds clauses in Blair House after additional compensation for "set-aside" had been agreed by EC farm ministers on May 27. Yesterday's move is part of the same decision.

Yesterday's Commission proposal would raise the compensation for cereals-producing land which is taken out of production from a rate of Ecu45 to Ecu57 (\$65.55) per tonne, calculated on the previous yield of the land. This would add Ecu32m to the EC's farm budget of more than Ecu36bn, Commission officials said, but the extra cost would not start until 1995.

"Set-aside" is required under last year's reform of the Common Agricultural Policy, which slashes farm prices severely, compensating farmers for the cuts only if they leave around 15 per cent of their land fallow to rein in over-production - a decision which has caused outrage throughout the French countryside.

The French government's formal objection to the Uruguay Round parts of Blair House, recently delivered to the Commission, says the EC could only meet the Gatt commitments in it through further set aside. "For France, there would be no

question of accepting an increase in set-aside, which has already reached intolerable levels," the document said.

The Commission also moved, in a package designed to make set-aside more flexible, to allow farmers to set aside more land than the statutory minimum, with full compensation.

In addition, to meet another French demand, Brussels would allow three-year, instead of six-year, rotation of the land laid fallow. But to ensure that it is not only marginal land that is taken out of production, a three-year regime would require 20 per cent, instead of 15 per cent set-aside.

Nobody in Brussels is under any illusions, however, that much bigger instalments of money will be needed if there is any chance of France accepting a Uruguay Round farm settlement, and that this is likely to require a raising of the ceiling on farm spending.

Toyota UK parts for Japan European anger over car deal

By Michio Nakamoto in Tokyo and John Griffiths in London

TOYOTA, Japan's largest car maker, yesterday began the first regular shipments to Japan of components from its £140m (\$211m) UK engine plant in Deeside, North Wales.

The 3,000 sets of crankshafts and cylinder blocks shipped each month will be worth a relatively small £3m a year.

But they are of symbolic as well as practical importance to Toyota at a time of renewed tension over the level of Japanese imports to Europe's diminishing new car markets.

The components will be used in 1.8 litre engines built at Toyota's Shimoyama engine plant and destined for Japan and other big markets. They are thus seen as a formal stamp of approval of quality at the UK plant.

However, the company also said the substantially lower costs of manufacturing in the UK made it worth importing the components to Japan.

Although Toyota had always planned to export product to overseas markets from its engine plant in Wales, the recent sharp appreciation of

the yen had speeded the process, the company said.

Toyota said the exports to Japan were part of its policy to optimise capacity at its plants around the world. If it wanted to make the extra engine components in Japan, it would have to invest in more capacity at Shimoyama.

Toyota has been importing engines and engine components into Japan from its US manufacturing plant in volumes of about 100,000 per month since 1992.

"Deeside has the capacity. The quality and the price are right, so this makes good business sense," said Mr Yukihisa Hirano, managing director of Toyota UK.

Production began at the Deeside engine plant a year ago before the start of car production at Toyota's £700m facility at Burnaston, Derbyshire, at the beginning of this year.

Car and engine output is scheduled to rise to 100,000 a year in 1994, and 200,000 a year in the late 1990s.

At this output level Toyota expects its UK operations to be purchasing £700m worth of components annually from European suppliers.

EUROPEAN car industry leaders yesterday attacked a new car trade deal between the European Community and Japan, saying it was unacceptable for Tokyo to boost its market share during the EC sector's worst decline since the second world war. Reuter reports from Brussels.

The board of directors of the European Automobile Manufacturers Association said the deal meant Japan's EC market share would rise to at least 12.5 per cent this year from 11.3 per cent last year.

In a statement issued after discussion at a board meeting in Frankfurt, the association said this increase ran counter to a 1991 EC-Japan agreement limiting Japanese car exports to the EC for the rest of the decade.

"At a time when European automobile manufacturers are announcing massive workforce reductions, an increase in Japanese market share is unacceptable," the statement said.

The 1991 arrangement was based on the principle of fair sharing of market downturns as well as increases and both sides had undertaken to uphold the spirit and the letter

of this understanding, the association said.

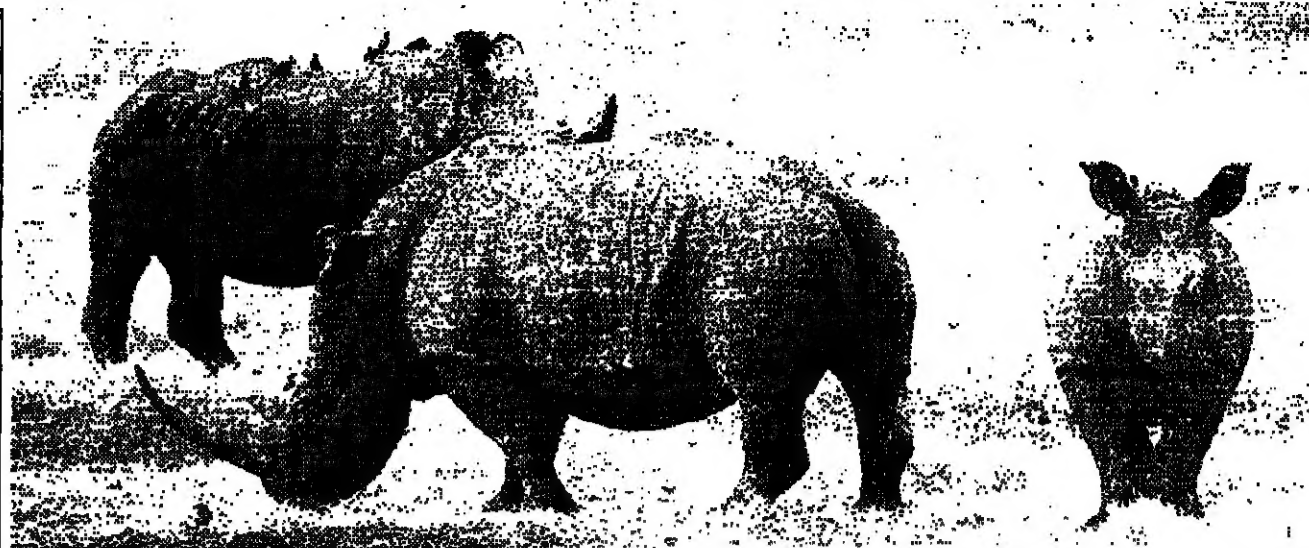
The latest agreement, announced in Tokyo last weekend after talks between the European Commission and Japan's Ministry of International Trade and Industry, would cut Japanese car sales in the EC by about 100,000 this year while the market would shrink by at least 2.4m.

Japan agreed to lower the ceiling on its 1993 exports of cars and light commercial vehicles to the Community to 980,000, compared with an earlier limit of 1,088m set in April.

The April accord was based on a forecast that EC demand would fall by 6.5 per cent in 1993; the new deal is based on a fall of 15.9 per cent.

The motor industry association yesterday welcomed both sides' efforts to adjust their market forecasts, but called on them to implement a transition period under the 1991 accord.

Its members accepted the goal of a fully open EC market, but said the current transition period was essential to complete European restructuring smoothly and to allow Japan "to open their still closed market" to European competitors.



White rhino in the Victoria Falls National Park, Zimbabwe. World stocks of white rhino are down to 5,200; the total number of rhino in Zimbabwe has fallen from 1,500 to only 300 this year.

THE US is set to go ahead with sanctions against China and Taiwan for illegally trading in rhino horns, irrespective of what the 120-nation UN Convention on International Trade in Endangered Species (Cites) decides, David Gardner writes.

The Cites standing committee, meeting in Brussels, was expected to reach a decision last night on today, after considering evidence that the two countries had failed to stamp out the trade, banned since 1976.

But Mr Bruce Babbitt, US secretary of the interior, has

US to impose sanctions on China and Taiwan over rhino horn trade

said he will recommend that President Bill Clinton go ahead anyway with a ban on nearly all wildlife products moving from and into China and Taiwan, under a 1987 US law.

EC officials yesterday said sanctions could be counterproductive at a time when the

Chinese and Taiwanese governments were trying to end the rhino horn trade.

Investigations by environmental organisations have turned up evidence that in China, Taiwan and Hong Kong, there is still a brisk trade in rhino horns, a traditional Chinese remedy for

reducing fever.

According to the Environmental Investigation Agency, the price of Asian rhino horn has reached recent peaks of \$60,000 a kilo, spurring poachers to prey on the sparse five surviving species. Zimbabwe last year registered 1,500 rhinos, according to Mr Dave Curry of EIA, but this year confirmed it had only 300.

According to the EIA, worldwide stocks of black rhino are down to 2,300; white rhino to 5,200; Sumatran rhino to 500-900; Javan rhino to only 80; and Indian rhino to 1,900.

ABB robots deal with GM Europe

By Andrew Saxter

ABB Robotics, part of Asea Brown Boveri, has won a "breakthrough" order worth nearly \$30m to supply more than 200 industrial robots to General Motors Europe.

The deal is ABB Robotics' first European order from GM, which has previously bought most of its robots from its for-

mer joint venture company, GMFanuc Robotics.

Last year, however, GM sold its 50 per cent stake in GMFanuc to its partner, Fanuc of Japan, as part of its strategy to concentrate on its core business of vehicle production.

The robots are part of substantial investments by GM at its plants in Belgium, Germany, Sweden and the UK. At

least 120 of the robots ABB is supplying will go to the Vauxhall Motors plant in Luton.

Most of the robots will be delivered next year, and will be mainly used for spot welding. ABB Robotics said the performance and cost efficiency of its product line were key factors in winning the order against fierce Japanese competition.

ABB Robotics' and the

renamed Fanuc Robotics are the two biggest suppliers of robots to European industry. Over the past decade, the automotive industry has been the largest customer for industrial robots. It remains important to the robot industry even if growth opportunities are higher in less robotised industrial sectors such as the food industry.

Ansaldo wins Mideast water contracts

By Robert Graham in Rome

ANSALDO, the engineering subsidiary of the Italian state-controlled Finmeccanica group, has announced it has won four water treatment contracts in the Middle East totalling L355m (\$204m).

The awards further strengthen Ansaldo's presence in the Middle East, coming less than a week after it won a contract

heading a consortium to build a L800bn power station and desalination plant in Abu Dhabi.

The largest of the new contracts is for a L200bn project in Kuwait to produce 600,000 cubic metres a day of drinking water from existing desalination plants. Another for L62bn involves the supply of 23 water treatment plants in Cairo for the Egyptian Ministry of Reconstruction capa-

bility of processing 100,000 cubic metres of water a day.

A third contract, worth L43bn, was awarded by the Saudi Agriculture and Water Ministry for the construction of a water storage and distribution system in the capital, Riyadh, for water coming from Gulf desalination plants. A further water treatment contract worth L30bn, with the Milan group Enit, was won in Damascus.

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NEWS: UK

Embattled Tories focus attack on Lib Dems

By Alison Smith

THE Conservatives are launching an offensive against the Liberal Democrats whom they believe pose the main threat to traditional Tory strongholds in the south.

Mr John Major, prime minister, will lead the fightback with a visit to the west country today in an effort to rebuild morale after the battering the Tories have taken over the past year. He will hold the first in a series of meetings with

party activists ahead of the Conservative party conference in October.

Mr Major is to visit other regions later this week, probably including the Midlands and Scotland. His itinerary is being kept secret for security reasons.

Switching targets from Labour to the Liberal Democrats, especially in the south-west, is a recognition by the Tories that they must win back disaffected voters in these areas if they are to win the

next general election.

In July, the Liberals won a spectacular by-election victory in Christchurch in Dorset, while at the local elections in May they took control of Cornwall and Somerset county councils from the Tories, and became the largest single party in Devon and Dorset.

Another disastrous performance in the European elections next June could put Mr Major's leadership in jeopardy. The switch of focus from Labour, whom the Tories

believe are mired in their own problems, to the Liberal Democrats is also designed to prevent that happening.

The Conservative campaign will seek to portray Mr Paddy Ashdown, Liberal Democrat leader, as an untrustworthy politician who tailors his arguments to his audiences, and so cannot be trusted to take a consistent line.

The campaign will also spell out elements of Liberal Democrat policy on subjects such as Europe and defence, which the

government believes are least likely to appeal to traditional Tory supporters - even when they are disenchanted with their own party.

The initiative comes less than two weeks before the Liberal Democrats themselves meet at Torquay for their annual conference.

Sir Norman Fowler, Tory party chairman, spent two days in the south-west this week as part of his tour of local associations, talking to constituency chairmen and

their deputies. Speaking in north Dorset yesterday, he said: "The Liberal party take a supportive view of a federal superstate, a federal Europe, the kind of Europe we stand against. That distinction is not recognised by the public, and we want to underline it."

The government is concerned about the prospect of a strong vote for Mr Ashdown's party in the European elections, which could lay the groundwork for a successful general election campaign.

Trust linked to Nadir bail man is investigated

By Jimmy Burns

A UK-based organisation linked to Mr Ramadan Guney, the Turkish-Cypriot businessman who stood bail for Mr Asil Nadir, is being investigated by the Charity Commission.

It emerged last night that the affairs of UK Turkish Islamic Trust, a registered charity with links to Muslim groups, have been brought to the attention of the commission after complaints about the way it was being administered. Mr Guney is registered with the commission as the chairman of the trust.

The commission last night refused to give details about its investigation. But an official indicated the potential seriousness of the investigation. He said: "Following representations which suggest the administrative control of the charity was inadequate, we have made our own enquiries and established that there are causes for concern."

It is understood that the commission has requested that the trust put its affairs in order, and to strengthen the trustee body as a first step.

Mr Guney, a London Turkish-Cypriot whose business interests include running cemeteries, was ordered in July by an Old Bailey judge to surrender £850,000 he promised as part of a record £5.5m bail which Mr Nadir skipped in

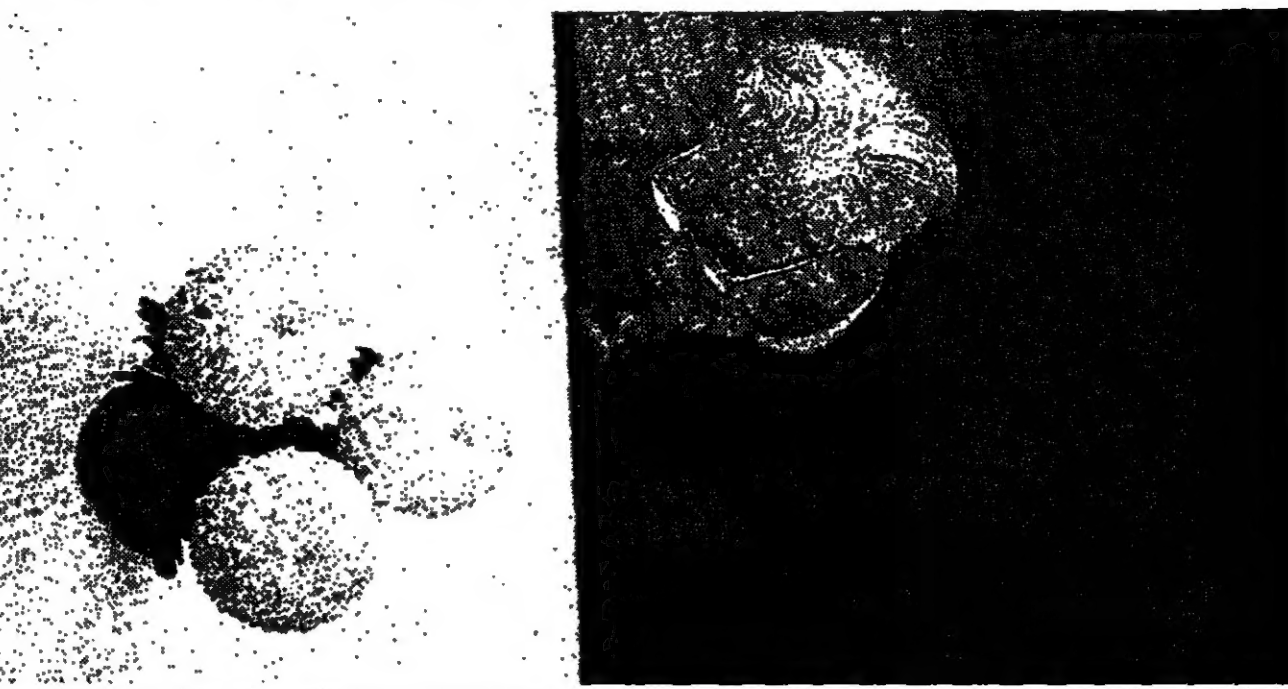
May when he fled to northern Cyprus rather than face charges of false accounting and theft. Mr Guney was given six months to pay and warned that he could face two years in jail if he defaulted.

Mr Justice Tucker, the judge in the case, said in court he was satisfied that Mr Guney had played no part in Mr Nadir's flight. The judge added, however, that Mr Guney had not taken all reasonable steps to ensure that Mr Nadir turned up to face trial.

Following the judgment, Mr Guney said that he had not been in contact with Mr Nadir, a long-time friend, and wanted nothing more to do with him.

In his appearance before Mr Justice Tucker, Mr Guney based his defence on the Serious Fraud Office's failure to extend his surety when the case was first transferred to the crown court. The judge ruled that none of the parties involved had ever considered that Mr Nadir had ever been surrendered into the custody of the court, so that his sureties were still responsible for his appearance at trial.

The scheduled date for the trial of Mr Nadir and an associate, Mr John Turner, is October 4. However sources close to the SFO indicated last night that the trial of Mr Turner might not begin then because of Mr Nadir's continuing refusal to return to the UK.



An enthusiast studying chrysanthemums yesterday at the City of London Flower Show

Photograph: Tony Andrews

Ansaldo returns to £110m rail deal

By Tim Burt

PLANS to build a rapid-transit system in the west Midlands took a step forward yesterday when Ansaldo Trasporti, the Italian rail equipment group, signed a joint-venture deal to develop and operate the line.

The deal removes some of the uncertainty over the £110m contract, which was thrown into confusion earlier this year when Taylor Woodrow, Ansaldo's original partner, abruptly withdrew from the venture.

At the time, Taylor Woodrow's decision was put down to

an economy drive to minimise losses in its contracting business. The company's withdrawal forced Centro, the operating arm of the West Midlands Passenger Transport Authority, to seek a new developer for the 20km light railway between Birmingham and Wolverhampton.

Centro officials said yesterday they had reopened talks with Eurotransit, a consortium formed by UK construction group Tilbury Douglas and AEG of Germany, but had failed to reach agreement. The breakdown allowed Ansaldo to resubmit its bid.

But construction will not begin until Ansaldo finds a new civil engineering partner. The project also depends on winning significant government funding.

More than £100m in state aid or private-sector finance would be required to complete the project, according to Centro.

Mr Bob Tarr, Centro's general director, said efforts to secure the government funding "would now be redoubled with an aim for a start date for work during 1994-95".

Under the contract, Ansaldo and its partner will pay £10m

towards the building costs and will receive a franchise to operate the transit system for 20 years without subsidy.

Mr Dick Worrell, chairman of the transport authority, said: "I now hope Ansaldo's discussions with the construction industry provide the final piece of the jigsaw."

A joint bid for EC regional aid has been submitted to the government by the county councils in Staffordshire and Derbyshire in conjunction with the Peak Park Planning Board. The councils are seeking Objective 5b status to help modernise rural areas.

Britain in brief



N Sea fields 'mature but not finished'

The North Sea could produce more oil and gas in the next 20 years than it has produced in the past 20, Mr John Browne, BP managing director, said yesterday.

This would be achieved by further improvements in productivity involving more advanced technology and lower operating costs and would be helped by the UK government's new petroleum revenue tax.

Mr Browne was opening the biennial Offshore Europe conference in Aberdeen. He said the North Sea was mature after 20 years of high production levels but was not finished, though some large fields had declining output.

He held out the possibility that UK oil production would stay at its current level of 2.5m barrels per day well into the next century and even reach 2.8m bpd, and that the UK government would receive an income of between £2.5m and £3.5m a year for 20 years.

RSI 'epidemic'

Britain is suffering an epidemic of repetitive strain injury (RSI) - various disorders of the hands, arms, shoulders and neck - which affects more than 100,000 people, said Mr Dick Pickering, president of the GMB general union. Launching a campaign on RSI, he said current compensation claims could cost employers £500m and the annual loss in working days was already half a million.

Pineapples take a snooze

Canadian researchers have devised a way of putting pineapples "to sleep" which will prevent the fruit rotting in transit.

Fruit company Geest is using modified atmospheric packaging, developed at the University of British Columbia, which preserves the fruit by extracting oxygen from the sealed plastic punnet in which it is stored. First consumers to taste the produce will be in Scotland, where Geest is carrying out trials.

Obituary: David Brown

Sir David Brown, industrialist, lover of fast cars and one of the great characters of 20th century British engineering, has died in Monaco aged 89.

As chairman of the David Brown Corporation, he forged a family-owned engineering empire that spanned gears, machine tools, castings and other products.

To the public, Sir David was a motor-racing fanatic whose company once owned Aston Martin, the luxury sports car maker. His David Brown Tractors company, founded in 1935, was the first to make an all-British tractor.

Sir David was once described as "at once energetic, forceful, ruthless, shy, withdrawn, gregarious, shrewd, suggestible".

As a businessman, his weakness, perhaps, was that he was never driven by any strong impulse to create profits. His involvement with Aston Martin from 1947 to 1972 encapsulates this approach - he once admitted that he never made any money from the carmaker but he had a good time.



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Mercury targets mobile phone market

By Andrew Adonis

THE CREATION of a mass consumer market for cellular phones came closer yesterday with the launch of the Mercury One-2-One network.

One-2-One, the third national cellular network, has centred its aggressive £10m promotion campaign on free local calls in the evenings and at weekends.

The network is available only in the London area, but it is planned to cover most of the UK by early 1996. One-2-One, a joint venture between Cable and Wireless and US West, is a high-capacity digital network.

Lord Young, Cable and Wireless chairman, said the "main target" of One-2-One was British Telecommunications. But with peak-rate tariffs and rental and handset prices several times higher than BT's, competition is likely to be met by existing operators Vodafone and Cellnet.

BT dismissed One-2-One as a replacement for fixed-line phones. Mr Ian Ash, BT marketing director, said: "Apart

from a marketing ploy for cheap-rate local calls, every other call will cost markedly more than BT's."

Mr Terry Barwick, Vodafone's director of corporate affairs, said the company would not react with further price cuts. "Competition has got to be seen to work. If we reacted, we could kill them."

One-2-One has spent about £150m on the first phase of its network, and expects to be profitable within four to five years. Its focus on the domestic market is a new departure for the eight-year old cellular industry, most of whose 1.7m customers are business users.

Free off-peak local calls are available only after 7pm on weekdays at weekends. A £20 connection fee and £12.50 monthly subscription are payable (excluding VAT). Calls before 7pm cost 25p a minute, off-peak national calls 10p.

The business tariff has a higher monthly subscription (£20) and an 8p a minute charge for all off-peak calls, but a lower peak-rate charge of



Lord Young, once a senior Conservative minister, now chairman of Cable and Wireless: the "main target" of One-2-One is British Telecommunications. Photograph: Trevor Humphries

16p a minute. Handsets for the new network sell for between £220 and £300.

The City views One-2-One as a serious challenger in the market. Mr Bryan Van Dussen,

mobile analyst at Yankee Group, said: "It changes the ball game entirely. Until now Cellnet and Vodafone have stressed their national coverage, but the special tariff

changes play to Mercury's strength as a local operator." Five years ago, the UK had fewer than 200,000 subscribers. Analysts expect that to rise to more than 6m by 2000.

Court agrees to delay ruling on pensions equality

By Norma Cohen, Investments Correspondent

LOBBYING by the UK life assurance and pension industries has persuaded the European Court of Justice to delay by several months an important ruling on how employers are to provide equal pensions for men and women.

The Association of British Insurers and the National Association of Pension Funds were said to have argued that the advice given to the court on equalising pensions would result in inequality of terms offered to those with occupational pensions compared to those with private pensions.

Employers will have to provide men and women with the same annuity benefits, even though UK insurance companies which sell annuities

offer different rates because women live longer. Those with personal pensions can still obtain gender-linked annuity rates.

A ruling in the Coloroll case, expected this month, will now be delayed until December or January. In the case, involving the pension schemes of the former home furnishings company now in liquidation, the court has been asked to decide which elements of a pension have to be made equal for men and women.

The court ruled in May 1990 that pensions are deferred pay and employers should not pay men and women different rates for the same work. In April, the advocate-general advised the court to rule that all aspects of pensions must be made equal, including benefits purchased with lump sums.

Industry demands end to age bias

By Diane Summers, Labour Staff

THE CONFEDERATION of British Industry, the employers' organisation, yesterday urged its member companies to tackle discrimination against older workers. The move came as a report on age discrimination throughout the European Community disclosed that companies' recruitment policies in most countries start to work against applicants from the age of 40.

Increasing numbers of workers over 50 are being "persuaded" to retire early throughout the EC, says the study by the European pressure group, EuroLink Age.

The CBI called for an end to discrimination against older workers as part of a campaign to improve work opportunities. It warned companies that unless they "secure the best contribution from all the talent available, they will not compete effectively". There had been progress, it added, but there remained glaring examples of under-representation of some groups of workers.

The CBI said redundant executives aged more than 40 took twice as long to find jobs as those under 35. It added in a statement on equal opportunities that more than 40 per cent of the labour force was female while only 8 per cent of managers were women. It said disabled people were four times as likely to be unemployed as those without disabilities, and that only 36 per cent of young people of Asian origin were in employment compared with 71 per cent of young white people.

Mr Howard Davies, CBI director-general, said the organisation would ask Mr Peadar Kirby, EC social and employment affairs commissioner, "to make equal opportunities a central part of the community's social policy". The EuroLink Age report says older workers are subjected throughout the EC to early loss of employment, discrimination in recruitment, exclusion from training and enforced retirement.

Whiff of profit sweetens outlook for new Lloyd's investors

Richard Lapper finds optimism in the search for fresh capital for the insurance market

CORPORATE finance teams at more than half a dozen banks and securities houses are increasingly confident about their ability to attract new corporate capital to the Lloyd's of London insurance market, which is preparing to publish its rulebook for "Incorporated Names" later this week.

Both British merchant banks which are aiming to float investment companies or trusts on the stock exchange, and US investment banks which generally favour private placements among US institutions, venture capitalists and the "super-rich", are well advanced with plans to raise several hundred million pounds for the Lloyd's market.

They say that the lure of attractive profits as insurance rates increase is proving attractive to institutional investors. "Our optimism is ris-

ing quite a lot; the mood in the markets has swung," said one British corporate finance executive.

Insiders at Lloyd's believe it might be able to attract between £500m and £1bn in fresh capital next year, offsetting a decline in capital provided by Names, whose assets support the market.

Lloyd's announced plans to seek corporate investment in April in a bid to shore up its capital base following the loss of over 10,000 Names and some £3bn in capacity in the past four years.

The new rulebook for corporate investors effectively amounts to a "prospectus" and will detail the terms on which new investors will be able to participate at Lloyd's. Accounting, regulatory and other rules are all spelled out in detail in the document, which will also provide a comprehensive pic-

ture of how the market works. Final approval is dependent on existing Names who must vote on the plans at an extraordinary general meeting in October. Their approval is far from guaranteed.

Two months ago, financiers worried about the scale of liabilities faced from US pollution and asbestos claims. They now believe that plans to "ring fence" old claims by setting up a new reinsurance company will work.

Even where doubts persist, bankers are downplaying the dangers. One financier is telling potential clients that while the "ring fence" scheme may not be entirely successful, it will provide an extra layer of protection not enjoyed by investors in some UK and US insurance companies, equally exposed to US liabilities.

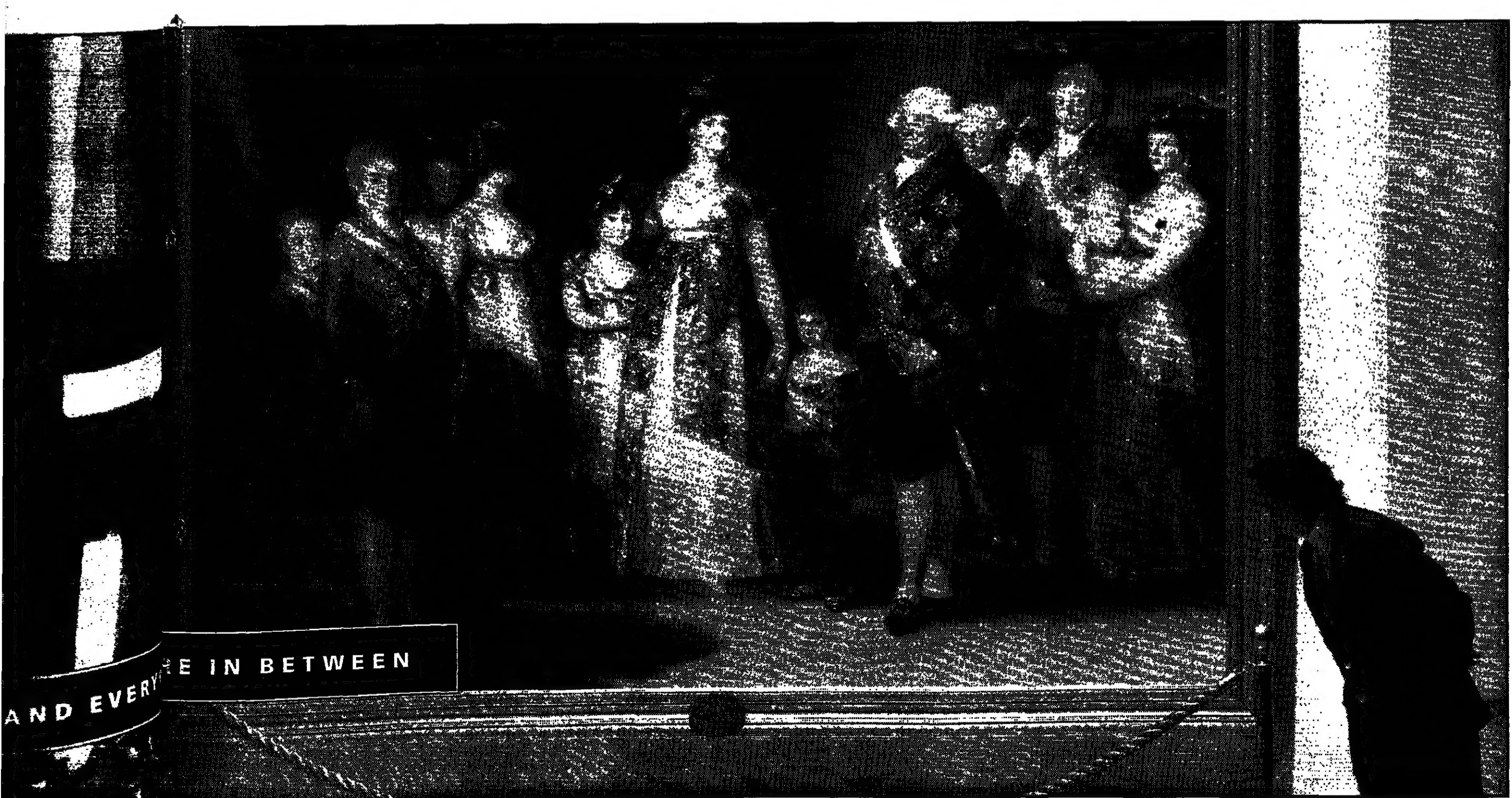
Concerns that allegations of mismanagement and regulatory failure would make it difficult to sell investments seem to have evaporated. "I sense Lloyd's has passed its absolute

crisis point," said one banker. Bankers are placing more emphasis on the prospects of profits as premium rates in the specialised commercial insurance and reinsurance markets rise to new highs. Rates for catastrophe reinsurance especially have set fresh records, prompting investors to pump more than £2bn into the Bermuda reinsurance market in the past three months.

Prices in the marine, aviation and other commercial markets in which Lloyd's spe-

cialises have also risen strongly. "The opportunities for profit are now very real in the London market as the rating structures in many of the major classes of business have been corrected and there is a commitment to manage capacity far more professionally than has been possible in the past," said Mr Michael Wade, one of the backers of Corporate Lloyd's Membership, a subsidiary of Sedgwick, the insurance broker, which aims to launch a quoted investment

advised Lloyd's on its overall plan to attract corporate investors. It is involved in a separate plan while Lazards and Kleinwort Benson are supporting initiatives by two other agents, Octavian and Sturge Holdings respectively. In other deals Phoenix Securities, a London-based "boutique" securities house, has linked with Anton Members' Agency and the New York securities house, Donaldson, Lufkin and Jenrette. London Wall, the Lloyd's agency, is working on a scheme with Dunedin Investment Fund Managers and Bescom Gregory, the stockbrokers. Goldman Sachs is also thought to be working on a scheme.



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MANAGEMENT

Wolfgang Samo has pioneered a string of controversial changes at Ciba, the Swiss chemicals and drugs multinational. He is best-known in the company for three things: for the toughness with which he has turned round several of its problem businesses; for his early creation of small, transparent business units at a time when Ciba was still heavily centralised and organised in large, opaque lumps; and for transforming the motivation and performance of managers outside Ciba's Basel base by shifting the global headquarters of several businesses away from there well before so-called "transnational" structures became fashionable in the late 1980s.

But never before has Ciba's top management - which now includes Samo himself - repeatedly had to reassure the rest of the company that an experiment which he is conducting today will not necessarily be applied to the rest of the group tomorrow. The latest attempt to pacify managers' fears is being made this month, following a lake-side convalesce of the top team in late August.

A tall and youthful 56-year-old bearded German who bears more than a passing resemblance to Europe's best-known corporate revolutionary, Percy Barnevik of ABB, Samo admits that, even in top management, some people think one of his latest actions is "sheer madness".

But he adds quickly that several other division bosses would like to follow suit.

Out in the various countries affected by his action, reactions to Samo's move also differ, ranging from enthusiasm in Spain, Italy and France to a decided lack of conviction in Britain.

The British say their reluctance has been misconstrued, and that it resulted from organisational difficulties arising from the relative size and complexity of the UK polymer operations, which are based outside Cambridge. But Samo claims that "it has nothing to do with the organisation - it is purely a matter of the individuals".

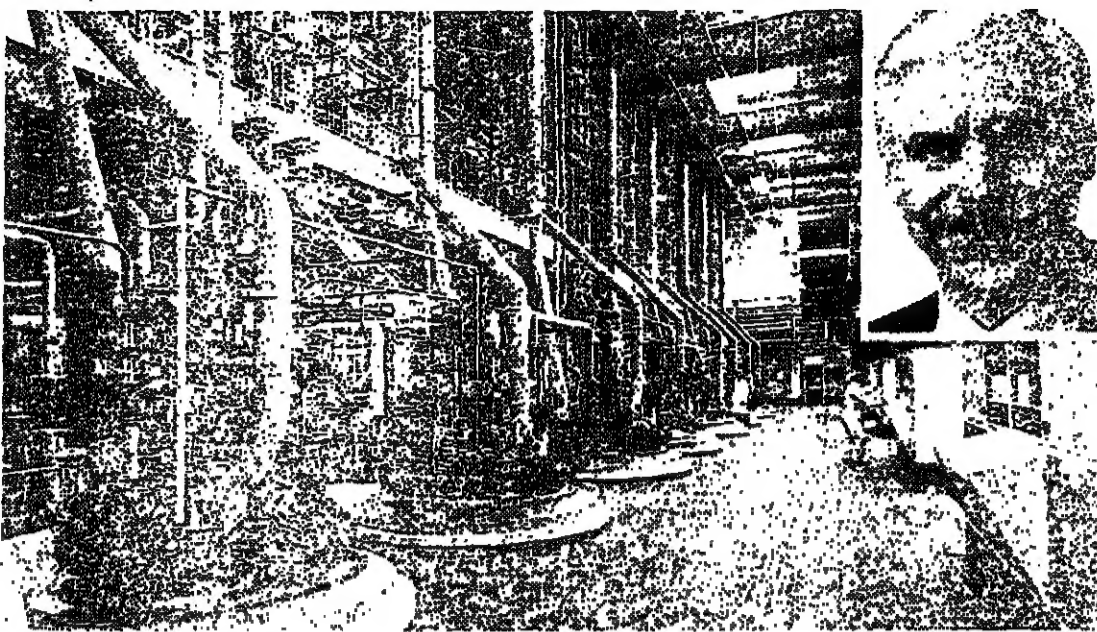
The action in question was taken last January in polymers, one of the most hard-pressed of four divisions which report to Samo. As part of a Europe-wide "re-engineering" project for that division which is even more far-reaching than most such exercises, the divisional heads for 10 west European countries were replaced by a leaner supranational structure.

Salespeople in each country are still organised nationally, but they now report to one of three regional sales managers located around Europe, who in turn report to a European sales manager in Basel.

The move has not only meant the

Christopher Lorenz reports on a shake-up at Ciba that has caused tension among national subsidiaries

A little local difficulty



Reaction to Wolfgang Samo's (inset) experiment in the polymers division ranged from enthusiasm to a decided lack of conviction

early retirement of a batch of national division managers, but also a further weakening of the muscle of a second group of more senior executives. Ciba's "group company heads" - once-powerful country bosses who used to control the activities of its various divisions on their territory. This has naturally provoked resistance.

Until 1990 the "group company heads" were jointly responsible for local divisional operations. Since then, in common with many other companies in chemicals and other industries, this strong geographic influence has been reduced throughout Ciba to a "dotted line", giving clearer control to divisional bosses. In polymers, that dotted line has been removed entirely. Instead, "there's a big hole", says Samo.

That is what John Fraser, the UK group company head, dislikes. "I feel no problem at the loss of direct authority over divisional heads," he insists. "I've been doing that for eight years of my own volition," as part of a decentralisation policy he initiated in the UK before the rest of the group followed suit. But he

does prize the ability to comment from time to time on UK aspects of divisional affairs, and for his input to be respected. In polymers "that has now been lost", he says starkly.

The second source of the fuss over the polymers move is the national heads of other divisions, who "fear the same fate as polymers", as Samo puts it. There are

'It's easy to plan projects in black and white, but when you go into detail you hit a minefield'

also some genuine fears that, although most of the division's customers are multinational companies which themselves operate across national borders, the removal of local management will impair Ciba's responsiveness to different demands in different markets.

Samo protests to the contrary: the need to make the barely profitable polymers division more customer-

responsive by shortening its lines of communication was one of the sparks behind the re-engineering project, he says; the others were the division's in-built heavy overheads and stocks. To help achieve this, the existing network of 28 warehouses will be cut to six between November and the end of 1994, and order processing will be done centrally in Basel.

This re-design of polymers' supply network, and the associated information system, was the concept with which the re-engineering project began, before it was enlarged with the help of consultants from CSC Index to encompass the changes in sales management. Together, annual savings of more than Sfr30m (£14.2m) are expected, compared with the project's one-off cost of Sfr20m-plus.

The fact that the change was so systems-driven, and that consultation, staff training and "culture change" initiatives were left very late, is one of the points on which the UK's John Fraser criticises the project.

John Beadmoore, who was UK

head of polymers until the post was abolished in January, agrees. He retains a sort of sponsorship role which has been negotiated especially with Basle, but his main job is now global head of the group's adhesives business, a responsibility which Samo transferred to him from Basle last year.

Samo says he wishes Beadmoore were "more struck" by the latter than by the loss of polymers. "We still have a lot of convincing to do with our British colleagues," he says.

Diplomatically, Beadmoore and Fraser claim repeatedly that their differences with Basle have been over the "how" of the re-engineering project, rather than over its basic direction, and that their constructive suggestions have been misconstrued as opposition. But it is self-evident that this is an understatement.

From his relatively neutral vantage point north of Basle on the River Rhine, Fraser's German counterpart Walter Fudelmann sees the British reaction as "quite understandable". He says: "It's easy to plan strategic projects in black and white, but when you go into detail you hit a minefield." Local management has no choice but to speak up, he says.

Fudelmann also sympathises with Beadmoore's careful observation that, for a company now so committed to decentralisation, the new polymers organisation is remarkably centralised on Basle.

Samo replies firmly that Basle just happens to be virtually in the centre of Europe, and it is only the division's salesforce and logistics management which have been centralised - much of the rest was already in Basle - and that in other respects his decentralisation drive continues.

In the end, Fudelmann sides with Samo on the need to centralise for "rationalisation", as he puts it, in polymers. "The only way to find out whether a European organisation really works, and can be a reasonable approach for other divisions too, is to try it," he says. "After a year or two's experience, other divisions are allowed to follow suit. Samo forecasts that that the centralisation would not necessarily be on Basle: "It could just as well be Brussels, or elsewhere", he says.

He is equally clear that "it would be crazy" for pharmaceuticals, and several other Ciba divisions which need deeper sales management in each country, to copy the new polymers organisation. "Each division is different, and needs to be organised differently," he says. "If he has his way, Ciba will move even further away from having a standardised structure, and become a model of what business school graduates call 'the differentiated organisation' of the future."

John Beadmoore, who was UK

Give yourself a pat on the head

Lucy Kellaway examines ways to overcome stress at work

"I WANT you to relax. Rest both your feet firmly on the ground. Shake your hands like this, and place them in your lap. Now shut your eyes, gently close your lids and concentrate on doing that. Breathe in through your nose and then out through your mouth. Slowly, slowly, take your time."

It could have been a relaxation class for expectant mothers. In fact it was a seminar for stressed-out executives, given in London this week by a woman who fights stress on the front line in New York.

Silvia Thomas has taught the New York police force and fire service how to overcome the pressures of their work, and argues the same methods of coping apply to anyone in any job. Dealing with stress while making a violent drug bust in Harlem or fighting a towering inferno is no different from managing the pressures of nine-to-five office life in the suburbs.

"The way in which the body responds to stress is common to everyone," she says. "The issue is not the level of stress but how you deal with it."

The trick, she argues, is to recognise at the outset when we are getting into a stressful situation, and learn how to talk ourselves out of it. So whenever an underling is obstructive, or the boss shouts, the pulse begins to race and the adrenaline flows, we must stop for a minute. "Say to yourself: 'What's the rush? slow down', or count to 10, or do anything to give yourself time for a change of focus."

This she says sends the body a physical message which helps switch off its alarm signals. You should "give yourself a positive to take place of the negative".

This means that when challenged you should act as your own cheerleader, telling yourself that you can do it. In extremes you should not only urge yourself on, but should pat yourself on the head. She recommends that you give yourself a series of little strokes all over your head starting from the top.

If you are embarrassed to do



All fired up: fighting stress

this in the middle of a meeting you could go to the lavatory and do it there, she suggests. People should also take their lunch breaks, no matter how busy they are, and go for a brisk walk. They should make an effort to snatch moments during the day to clear their minds and relax.

Firefighters in New York - which may be the stress capital of the world - may have long since realised the importance of stroking their hair and inhaling deeply. But according to Thomas people in the UK are still not aware of the extent of the damage done by stress nor the need to address the problem.

On returning to the UK after an absence of nine years, she finds stress everywhere. People are frightened of losing their jobs, and those who still work are having to work harder. Meanwhile improvements in technology have meant that everybody is on call 24 hours a day. "You can be caught anywhere, everywhere," she says.

Figures from the UK Health and Safety Executive showing that 14m is lost a year through occupational stress sickness reveal just the tip of the iceberg, she says.

More realistic are official US figures which estimate that the overall effect of stress, taking into account the inefficiency it causes, will cut GNP by 10 per cent.

So if the person opposite you on the train starts giving their head little pats, look on them with respect they may indirectly be increasing the country's GNP.

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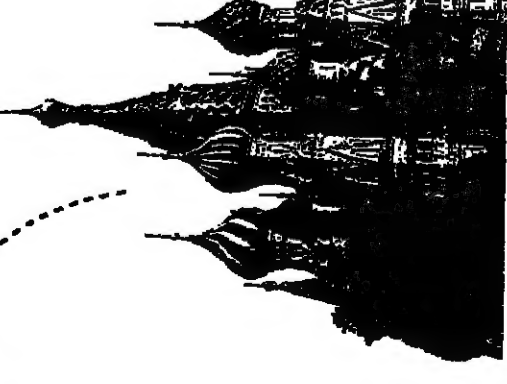
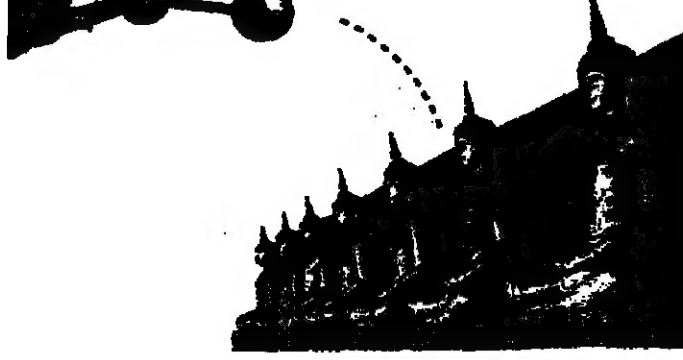
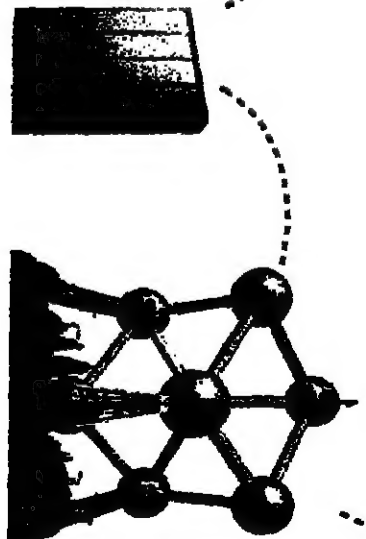
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FINANCIAL TIMES

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The company is among several thousand beneficiaries at Holyhead, north-west Wales, where Manweb has been conducting a six-month experiment on promoting energy efficiency measures.

The results are expected to include a reduction in peak electricity demand next January of about a ninth. They will be examined closely by other regional electricity companies, which are beginning to look at similar initiatives, and by environmental campaigners.

In the UK, energy efficiency has never achieved the prominence it has in North America, where electricity companies are required by regulatory authorities to promote it. But that is about to change. In a recent review of the 12 regional electricity companies (Recs) supply businesses, Offer, the electricity regulator for England and Wales, removed incentives for ReCs to make profits just by selling more electricity, rather than being more efficient.

From next April, the companies will be required to spend £1 per customer, per year on energy efficiency measures. Similar measures are expected in Offer's review of the ReCs' more profitable distribution arms, scheduled for completion next year.

The Holyhead initiative was conceived after a Copenhagen energy conservation conference attended two years ago by Colin Leonard, Manweb's power marketing director. Leonard admits the company could see the public relations advantages in a conservation experiment. More important, the company felt the experiment would give it a lead in building its energy conservation arm.

With value added tax being introduced on domestic fuel sales next year, the energy conservation industry is set for growth. An attraction for Manweb is that profits will not be regulated by Offer.

In choosing a testbed area, Manweb was attracted to Holyhead because, as an island at the edge of the company's distribution area, it was electrically self-contained. In addition, the company faced a bill for £750,000 within two years on reinforcing the network on the



Saving energy: Gordon Chapman of the Aluminium Power Company is reaping the benefits of Manweb's advice

An island's experience

Regional electricity companies will shortly have to promote conservation, writes Michael Smith

Island.

The reduced energy consumption means that expenditure can be deferred. Manweb says it is not looking to make money out of the initiative, rather to learn from the experience. However, with the aid of an £80,000 EC grant and the reinforcement work savings, it hopes it can recoup its £500,000 investment in the Holyhead project.

Manweb's money has been spent on a mixture of gifts and incentives to the island's 3,500 households and 600 businesses. Domestic customers were offered two low-energy light bulbs for 70p each, less than a tenth of their usual price, and a free hot-water cylinder insulation and low-cost insulation and draught proofing. Commercial and industrial power users were each provided with a free energy audit and financial help towards implementing the recommendations.

At Alpo, the bulk of the savings (£13,500 a year) have come from reconditioning three of the five compressors needed to convert molten aluminium into powder. The reconditioning cost £30,000 but with Manweb contributing £5,000, Alpo expects to recover its expenditure within two years.

Manweb contributed £10,000 to the £12,000 cost of installing a power factor correction unit needed

to regulate power flows. Alpo's investment of £2,000 should be repaid within a year.

Requirements at the Anglesey Sea and Surf Centre were much simpler. A modern building, it already benefited from energy technology equipment. "Our problem was that electrical surges were causing lights to pop," says Nigel Denis, manager.

Manweb's solution was the installation of 82 low-energy compact fluorescent lamps at a cost of £4 each. The energy saving alone is about £250 to £300 a year, roughly equivalent to the cost of installation.

Simple solutions have also been the hallmark of Manweb's approach in the domestic market, as pensioners Eury and Mair Owen have discovered at their one-bedroom bungalow. The installation of two compact bulbs, four-inch loft insulation and draught proofing has cut the Owens' monthly electricity bill from £36 to £28 a month.

But if Manweb's customers have benefited from the experiment, what has the company gained, other than deferral of £750,000 of expenditure? "We have had almost every known energy saving measure known to mankind on the island," says Leonard. "We aim to find out what works and doesn't work and what people will resist." The knowledge will be provided

by a comprehensive survey of Holyhead inhabitants over the coming months. Depending on the results, Manweb will decide whether to market products more aggressively in other areas.

Some lessons are already apparent. According to Benstead, response to the project was considerably greater among the 3,500 households, most of whom have adopted at least some energy-saving measures, than it was among businesses.

"We had to drag businesses to the talks we gave for them on energy conservation," he says. "We found that very few were prepared to undertake any work which did not pay for itself within a year or so."

This has been a factor in prompting Manweb to consider schemes in other areas where it will provide capital costs for energy-saving devices in return for a proportion of the savings in future years. "Many customers will not invest in energy savings because they want to direct scarce capital at core businesses," says Leonard.

"Some organisations, including hospitals, have no money but would benefit enormously, for example, from new lighting systems. Like other electricity companies, we have low gearing and can afford to help."

of the European countryside. To others, they are a welcome splash of bright colour. Throughout northern Europe and across parts of North America, glaring yellow fields of rapeseed have become a common crop for the foodstuffs industry.

Increasingly though, the plant is making inroads into industry - encouraged by EC subsidies - as the base oil for lubricants which do not pollute the ground or air.

As industrialised countries introduce stricter environmental laws and guidelines, the use of non-mineral oil-based lubricants is gaining ground. Last year, Austria became the first country to put a legal ban on lubricants containing mineral oil, though this was only for use with chain saws.

Other countries, notably Germany and Switzerland, are becoming more conscious of the damage lubricants can do to the environment, especially near rivers or streams. Thus, reckons Theo Mang, technology director at Fuchs Petrolub of Germany, use of environmentally friendly lubricants could account for between 10 and 15 per cent of the German market by the end of the century. At present, they make up only around 1.5 per cent of the market, which totals 1.2m tonnes a year; the rest European market is more than 5m.

Products based on mineral oil are poorly biodegradable, only about a third of their content being absorbed into the environment over the accepted 21-day test period. Lubricants based on plant oils and their derivatives break down almost entirely.

"Up to 40 per cent of the volume of lubricants goes into the environment after use," says Mang. Most of this is deliberate. The dispersal is part of the process in which the oils are used, as with so-called total loss lubrication in which equipment is fed with oil to keep bearings running smoothly.

for love of the environment. Such products are more expensive. Also, they are not usually subject to a specific ban, the Austrian law being an exception.

"Concern for the environment is not going to be enough," believes Mang. "We have to find other arguments."

Fuchs, a world leader in the development of plant oil-based products, stresses instead the costs that can be incurred if lubricants accidentally pollute environmentally sensitive areas. In Germany, one litre of spilled hydraulic oil can spoil one cubic metre of soil. Cleaning this up



Filling up with rapeseed oil

costs around DM1,500 (£600). Storage can also be cheaper for lubricants made with rapeseed oils such as sunflower oil, or from esters (organic compounds) derived from them, since no special precautions are needed to prevent these entering the water table.

At the simplest level, as with chain saw oil, rapeseed-based lubricants can cost up to 30 per cent more than regular lubricants. But beyond this, the costs soar. For more complex hydraulic lubricants, the price can be double that for products based on mineral oil.

In very specialised cases, this may not matter. Some aviation oils are based on esters, not because of their environmental properties but for technical

important. Mang says companies are gradually more willing to consider plant oil-based products, "but price is a limiting factor."

An important stimulus to their wider use is the attitude of the authorities. Most German forests are state-owned and their administrators have laid down that biodegradable oils must be used for mechanical work there. Public authorities are also taking a tougher line on types of oils used on construction sites for their new buildings, and the Bundesbahn (federal railways) is testing plant-based oils for greasing its track.

As this awareness spreads throughout industry in Germany and elsewhere, Mang sees a growing market for non-polluting lubricants. "I'm convinced it's only a question of time before it develops in other countries like France and the UK." He also sees prospects in the US and Canada, especially for wood-processing machinery and possibly later in South America.

Clearly, official pressures will have a strong influence on the speed and extent to which plant oil-based products made by Fuchs and other companies are taken up. In Germany, the country's Blue Angel label for ecologically sound products - awarded by a panel of government, consumer, industry and environmental representatives - has been applied to chain saw and total loss lubricants and Mang expects it to be extended to hydraulic oils.

At present, around 70 per cent of Fuchs' non-polluting lubricants are rapeseed-based, the rest being made from synthetic esters derived from rapeseed or other natural fatty acids. But the more demands that are put on the lubricants, the more reliance is likely to be placed on esters.

If price were no object, around 90 per cent of lubricants could be made with plant oils or esters, reckons Mang. But even in his wildest dreams he does not see this happening, especially with recession causing companies to look hard at costs.

PEOPLE

Italian with designs for Dawson

Dawson International, the Edinburgh-based textile company, has appointed the merchant banker Arnoldo di Giorgio to the newly created post of director of corporate strategy. He will be responsible for identifying and helping secure acquisition opportunities.

Di Giorgio, 34, was until recently director of investment banking with IMI Capital Markets UK, an offshoot of IMI, the Italian state-owned investment bank. He has also worked for Schroders and the Industrial Bank of Japan, both in the US and Europe.

Born of Italian parents in the US but educated in Italy, he says he came into contact with Dawson International while acting for companies which Dawson was attempting to take over.

Sir Ronald Miller, chairman of Dawson, says it is hiring di Giorgio because of his international experience of the textile industry. "This new appointment brings additional resources to help realise our full potential and marks the strengthening of our resolve to do so," he said. Di Giorgio will join Dawson on November 1

and will be based in London.

Dawson is divided between Dawson Premier Brands in the UK, which is predominantly in knitwear, and Dawson Consumer Products in the US, whose products include thermal underwear. It made pretax profits of £33m on turnover of £431m in 1992/93, making it a medium-sized player among other textile groups.

"Dawson has reached a critical level of profits and sales," says di Giorgio. "It can either go up or down - it can't stay where it is. I would like to see global approach."

Likierman to advise Treasury on accountancy

Andrew Likierman has been appointed as chief accountancy adviser to the Treasury and head of the government accountancy service.

Likierman, 48, professor of accounting and financial control at the London Business School, will be seconded initially for three years, taking up his post on December 1. His predecessor, Sir Alan Hardcastle, retired at the end of this month.

The job, which was advertised at £90,000-£120,000 a year, involves advising the government on accounting policy, liaising with professional bodies, overseeing financial management initiatives and covers responsibility for co-ordinating accountants employed by the Civil Service.

The appointment comes at a time when there is considerable change in accounting and auditing standards, regulation of auditors, restructuring of accounting in the public sector and contracting out of services to private enterprise.

Likierman is a member of the Cadbury committee on the financial aspects of corporate governance and of the Financial Reporting Council. He was president of the Chartered Institute of Management Accountants in 1991-92.

His research has emphasised the link between economics, accounting and financial management in public expenditure. He has examined performance measurement, spoken in favour of cautious moves towards private-sector style accounting within the public sector and on the need to raise the profile and influence of accountants within government.

After graduating in PPE from Balliol College, Oxford, Likierman trained as a management accountant with Tootal in Manchester.

He served as a member of the Cabinet Office Central Policy Review Staff, was adviser to several House of Commons select committees, a council member of two Next Steps agencies, and a member of the Audit Commission. He has served on several government inquiries including one on auditors' liability.

Comings and goings at Dwyer

Dwyer, a property investment and trading group, yesterday announced a number of changes to its board including the appointment of Graham Kennedy, a director and consultant at James Capel, as its non-executive chairman.

Three new directors have been appointed to the board, to replace three who are stepping down.

The latest changes mean that only one director, Anthony Kirwan, was on the board before last November when Desmond Bloom, chair-

man and chief executive, resigned to cut the company's overheads.

The outgoing directors are Martin Silverman, formerly deputy chairman and finance director, Michael Dwyer and Martin Phillips.

The new directors are Graham Kennedy, 56, a former head of corporate broking at James Capel, David Dugdale, 50, a former joint chief executive of James Capel and William Bolt, 61, a retired partner of Chesterton, chartered surveyors.

Joey Efsandi, chief executive, says the board reorganisation had been agreed amicably. He says the board changes were appropriate given the new direction that the company was taking following its change of management last year.

"The alteration in the board structure forms part of the changes which are being implemented at the company," he says. "I believe we have an excellent team at Dwyer, combining both senior City and property expertise."

Non-executive directors

The merchant bank Lazard Brothers, which is 50 per cent owned by Pearson, publisher of the Financial Times, has appointed another non-executive director, Michael Orr, thus increasing the number of non-executives on the board to eleven.

The chairman of Molina, manufacturer of specialist machinery for the tobacco and packaging industries, Orr, 56, is a very active City figure having already notched up non-executive positions at W.H. Smith, Granada Group, Sketchley, Govetti's Strategic Investment Trust, the Throgmorton Trust, and the Staffordshire-based brewers Marston Thompson and Evershed.

Is Lazard's chairman, David Verey, confident that Orr (right) will be able to squeeze some extra time into an already busy schedule? "That is his [Orr's] agony and to some extent mine too," says Verey. "But he is very



■ John Haggas has resigned from SKIPTON BUILDING SOCIETY.

■ Stuart Macdonald, former chief executive, at SCOTTISH HERITABLE TRUST.

■ John Webster, formerly of Sun Life Asset Management, and George Dennis, a founder member, as chairman of The HOUSING FINANCE CORPORATION and its subsidiaries T.H.F.C. (Indexed) and T.H.F.C. (First Variable) on the retirement of Norman Ireland. Sir James Spooner has also retired.

■ John Morton has resigned from ABTRUST NEW EUROPEAN INVESTMENT TRUST.

■ Donald Waters, deputy chairman of GRAMPAN Television, as chairman of its subsidiary Glenburnie Properties, and Brian Ray, Glenburnie's company secretary and Grampian's chief accountant, a director of Glenburnie.

■ David Hewitt, a former md of Thorn EMI Ferguson and chairman of Comet, at COLORVISION.

Gordon Chapman was suspicious when Manweb, his local electricity distributor, offered help in reducing the power requirements of the aluminium factory he manages. Working in a highly competitive industry he found it hard to comprehend why any company should seek to cut its sales volumes.

However, Chapman and his factory, owned by the Aluminium



Rapeseed popularity grows among 'greens'

Lubricants made from plant oils are gaining ground,

Television / Christopher Dunkley

You have the right to speak British

Human drama from both sides of the Atlantic: Robert Duvall and Diane Lane (above) in *Lonesome Dove* and Julie Walters and Jim Broadbent in *Wide-eyed and Legless* (right)

OVER dinner with his father a four year old boy asks "Daddy, do you know what the police say when they arrest you?" and the man, who has spent a considerable part of his adult life watching crime series on television, replies "They usually say 'You're nicked'". But the child insists that that is not right. "They say 'You have the right to remain silent' and he adds a number of other clauses, mainly about the right to consult a lawyer.

What the boy is quoting is not the standard British caution, but its American counterpart (known as the Miranda rules). Serve on a British jury these days and you are likely to find that your fellow jurors' ideas about the law consist of one part folk myth rooted in English common law, and nine parts US legal procedure picked up from the small screen.

This rather than, or as well as, the ubiquity of Diet Coke and Mickey Mouse is presumably what French intellectuals mean when they growl about "American cultural imperialism". Neither the child's parroting nor the jurors' misunderstanding is surprising when you look at the quantity of US drama on British television screens. At the weekend television's autumn season began to crank up, thank goodness, and one of its first offerings was a 90-minute drama in a new batch of "Screen One" on BBC1 called *Wide-eyed and Legless*.

It would be difficult to imagine anything more English. Julie Walters played Diane Lonsdale, a woman persecuted by a mysterious illness which necessitates steel cages on both hands, obliging her husband Deric (Jim Broadbent) to dress her and wheel her to and from countless hospital consultations, showing up the medical profession's ignorance and impotence without any effect upon their arrogance. Though driven repeatedly to the brink of suicide, Diane maintains a jaunty front for the sake of Deric and their children, and Deric, as their son remarks, worships his wife.

The spirit and attitude of this drama bring to mind the Ealing comedies; it is heroic on a domestic scale. It is also chirpy, melancholy, sentimental, eccentric, and gritty. Above all, thanks to Jack Rosenthal's script (from Deric Longden's two autobiographical books, *Diana's Story* and *Lost For Words*) it is funny. Deric's relationships with the loyal women at his decrepit lingerie factory are endearing and funny. Deric's mother, played by Thora Hird as the world champion of the non sequitur, is funny. Asked "Are you Deric's mother or Diana's?" she replies "Possibly", and upon being told "That's not Lawrence it's Kenneth" she says "Well I knew it was someone of Arabia".

Eventually Deric meets and fancies a blind novelist named Aileen Armitage (another good performance, from Sian Thomas: this one will win

awards). Diana wills them to one another and then drowns herself in the bath. This drama brought to mind other British television productions from years ago: *On Giant's Shoulders*, for instance, and Trevor Griffith's work *Through The Night*, which had much to say about the superciliousness of doctors. They too were on a small scale, yet they too were powerful. All three, in a manner typical of the best of British television drama, dealt with worlds which we either inhabit or could find ourselves inhabiting.

There are many US television dramas of which the same cannot be said, even in relation to American viewers, for instance *Lonesome Dove*, a six-hour Western, shown last week by BBC1. In line with modern cinema tradition, at least since *Heaven's Gate*, it looks vividly authentic: sand, dust and

bright light; primitive conditions, baggy and ill fitting clothes, dirty people and ramshackle buildings. It is one of those rare cowboy films full of cows (like *Red River*) and, as with *Rancho*, the cattle drive is, at least ostensibly, the locus of the drama. In spite of that it feels diffuse and unfocused, more like a soap opera than a mini-series, in the sense that there are countless sub-plots yet no central story. Watch long enough and (again, as with soap opera) this ceases to matter since the characters themselves become so familiar and engrossing that they serve as a substitute for plot.

It will be said of *Lonesome Dove*, as it has always been said of Westerns, that although set in the 19th century it is really telling us about our own age, and for Americans there is probably some truth in that: the casual use of guns, the cheapness of life, the accep-

ance of vigilante vengeance do, by all accounts, apply as much or more today as in the days of Wyatt Earp. But it is to US society that they apply, not (yet, anyway) to ours, even if Americans do make their television programmes in our language. Happily this is not a world that we live in. Of course that does not mean that British viewers cannot be entertained by *Lonesome Dove*; the BARB figures may well tell us that more viewers watched it than watched *Wide-eyed and Legless*.

Perhaps the same applies to

another US mini-series, *Cruel Doubt*, shown on ITV last week, though I doubt it and hope not. This was an example of what seems to be emerging as the dominant genre within the world of American mini-series: weird and horrible crimes committed in suburbia, somewhere behind those big unfenced lawns running down to pavements where winsome "kids" do wheelies on thousands of dollars worth of advanced carbon fibre technology.

As so often with these series, this one was based upon a real

case. A teenage college boy who is a heavy user of drugs and an obsessive player of dungeons and dragons, draws his friends a diagram of his family's house so that they can murder his parents and he can inherit their money. No doubt we ought to be aware of such crimes; there is a tendency for most things American to cross the Atlantic eventually, but journalism would seem the best means of conveying such information. It is hard to see how anyone except the mentally disturbed or a particularly morose and spiteful teenager could possibly find *Cruel Doubt* entertaining.

For some reason BBC2 has chosen to describe its mini-series, *Love And Reason* as a "satire" about "the rough and tumble of politics", although there was nothing in the opening episode that looked remotely satirical.

So far it has been a story about factional bickering within the Labour party in the 1980s and the question of whether to modernise in line with Kimock's policies or stick to Keir Hardie style flat-cap socialism, even if the caps are being worn by women. The trouble is that we have seen this sort of material handled so much better in *GBH* and so far as inner-city corruption among planners and councillors is concerned, *Muck And Brass*. If the human story of sexy Lou Larson becomes more dominant the drama may become more compelling, but sticking with Labour's internal wrangling would seem like death. Labour's tribulations in the 1980s appear more dated than Lloyd George's selling of honours. So although *Love And Reason* portrays a world we have lived in, it feels utterly old fashioned and remote.

It should surely not be asking too much for British television to offer us, in addition to an avalanche of American material and all those steam train romances, some drama that engages us in the world where we now live. *Wide-eyed and Legless* was a good, indeed excellent, start, but much more will be needed if this autumn season is to be a memorable one.

Jazz

Happy night at the club

CECIL Walton's seasonal quartet is the kind of band jazz clubs are made for.

The sound of a rusty toned tenor relaxed against easy swinging piano and ice bucket accompaniment while the heads around dip to the pulse of a drummer happy in his work is enough to make you want to give up the concert hall for good. So comfortable is the pianist at Ronnie Scott's club that the first set featured "Ronnie's Decision", a bobby ode to the wisecracking Frith Street proprietor.

Tet though he is an inveterate tourist, whose quartets have usually featured a top shelf saxophonist (young Ralph Moore in this case), Walton is fixed in most people's minds as an accompanist whose prints are to be found on many of the great bebop sessions, notably from Blue Note.

He spent the golden years of hard-bop freelancing as well as working for a spell with Art Blakey's Jazz Messengers and has led his own bands since the early 1970s. Ever a stimulating and bright accompanist he has also contributed to the book of standards with original numbers such as "Mosaic" and "Bolivia".

For this week at Ronnie's, Walton is reunited with the conversational tone keeping of drummer Billy Higgins and bass player David Williams, on/off partners since the mid-1960s: the addition of talented young bop stylist Moore on tenor keeps the Walton quartet tradition alive.

As a leader, Walton mixes the understated persistence which kept him in demand as accompanist with a sparkling but spare solo technique to give Moore space to work freely and sometimes precisely in the mix of standards and originals.

Walton addresses the keyboard as if sitting down to a particularly intricate jigsaw puzzle, picking chords experimentally before embarking on a long blue line against the grain of the tenor's muted wailing.

Higgins, emitting a self-absorbed and gravelly gurgle from the throat, roams across the cymbals, the bass drum rolling low and hard. Modest and economical in delivery, "Bluest Blues" and "My Ideal" had Walton sitting out entirely between solos for Williams' first travelling excursions on the string bass.

Smokesy rather smoking, this superior late night jazz grows more intoxicating as the night wears into the wee hours. As the new CD title suggests, it is *Simple Pleasures* and well worth enduring Ronnie's elderly jokes for. Look out next week for more in a similar vein from tenorist's James Moody's quartet at the same place.

Gary Booth

Award for young dramatist

MARTIN Crimp has won the 28th John Whiting Award, given annually by the Arts Council to the writer of a new play which demonstrates a distinctive development in dramatic writing.

The Treatment, the play which won Crimp the award, was performed at the Royal Court in London in April. It is unusual in that the setting is New York, a city that Crimp only visited briefly as part of an annual exchange between the Royal Court and a New York theatre. It deals with skulduggery in the film world. It was a critical, but not a box office, success, but was admired by US producers and opens at the Newman Theatre in New York in October. Crimp was awarded his cheque for \$5,000 by Frances Barber, the actress, at the Hampstead Theatre yesterday. Previous winners of the award, which commemorates the playwright John Whiting, include Tom Stoppard, Peter Nichols, Howard Brenton and David Edgar.

Antony Thorncroft

Theatre / Malcolm Rutherford

The Seagull: a fluent display of fringe virtues

CHEKHOV must have had his tongue in his cheek when he described *The Seagull* as a comedy. No play that contains so much feeling and ends with a tragic off-stage suicide can quite fit that description. Yet one sees what he meant.

The Seagull is full of ironies, has some comic characters like Sorin, the invalid brother of the actress Arkadina, and has some comic situations which should be played for all they are worth. Perhaps Arkadina in particular does not belong to the really tragic mould. But unless you have a peculiarly warped sense of humour, the younger characters - Konstantin, Nina and Masha - surely do.

The production at the Orange Tree in Richmond has many of the virtues we have come to expect from the pleasantest of London's fringe theatres. It uses the fluent translation by Michael Frayn which almost persuades one that the play was written in English in the first place. Frayn simply skips the habit of constantly

repeating Russian names. Paul Shelley's direction has clearly been carefully thought out. The acting is impeccable down to the smallest part. No irony is missed. Watch the way Diane Fletcher's Arkadina recaptures her lover, Trigorin, when he says he wants to leave her for a younger woman. Trigorin is played by David Yelland: if you look at his face, it is immediately clear that she has only partly won him back and that he despises himself for going that far.

And if you want to see a proud, tortured but unrepentant woman on stage, note Naomi Capron as Masha. There is no fuss, just a controlled suppression of emotions when she cannot have the man that she wants. This is an even harder part to play than Arkadina who, as an actress, has the perfect excuse for letting herself go whenever she wants. Ms Capron makes Masha the most interesting character in the play, for all the others are either superficial or parodies. Her performance is superb. Cathryn Bradshaw's Nina looks melodramatic beside her.

For the rest, the production is not quite satisfactory. There are times when it is impossible to see all the characters. They seem to stand in diagonal lines. As it happened, I had a splendid view of Trigorin being repossessed by Arkadina; others may not have done. Chekhov's description of the place as a comedy may have been unduly overlooked: occasionally it could be played faster and the pregnant pauses cut short.

One of the reasons why we have come to expect such high standards at the Orange Tree is the artistic direction of Sam Walters. He has worked by developing a permanent company which understands the Richmond stage. Walters is now on sabbatical and *The Seagull* is performed by a more ad hoc group. The occasional lapse in the direction makes the case for a resident company, playing together all the time, look stronger than ever.

Orange Tree, Richmond (081) 940 3653

The face of love? Diane Fletcher (left) and David Yelland in *The Seagull* at Richmond

INTERNATIONAL ARTS GUIDE

COLOGNE

Philharmonie Tonight: Simon Rattle conducts City of Birmingham Symphony Orchestra in works by Bartok, Schoenberg and Elgar. Tomorrow: big band evening. Fri and Sat: Hans Vonk conducts Cologne Radio Symphony Orchestra in Bruckner's Eighth Symphony. Sun: Scharoun Ensemble gives world premiere of new work by Mark Anthony Turnage. Next Tues: Daniel Nazareth conducts MDR Symphony Orchestra in Beethoven and Tchaikovsky, with piano soloist Oleg Maisenberg. Sep 17: Alfred Brendel. Sep 19: Boulez conducts Boulez (0221-2801). Schauspielhaus Sat: first night of new production of Thomas Bernhard's play *Ein Fest für Boris*, directed by Nicholas Brieger (0221-221-8400).

COPENHAGEN

Royal Theatre Tonight: Ariadne auf Naxos. Tomorrow and next Tues: John Neumeier's production of Prokofiev's ballet *Romeo and*

Juliet. Fri: Bournemouth's ballet Napoli (tel 3314 1002 fax 3312 3692). Thurs Daily till Sun: New York City Ballet. Sep 15: semi-staged performance of Nielsen's opera *Maskerade*. Sep 18: Katia Ricciarelli. Sep 19: final concert of season (3315-1012).

DRESDEN

Semperoper Tonight and Sat: Don Giovanni. Tomorrow and Sun: Zemlinsky/Dallapiccola double bill. Fri: Der Freischütz. Sun morning: Mon and Tues evening: Colin Davis conducts Dresden Staatskapelle (0351-484-2731).

DUSSELDORF

Deutsche Oper am Rhein The season opens on Sat with Die Meistersinger, followed on Sun by Heinz Spoerli's ballet *Goldberg Variations* (0211-8908-211). Duisburg Theatre has *Tosca* on Fri and Don Carlo on Sun (0203-3009-100). Schauspielhaus The first production of the new season is Shakespeare's *Romeo and Juliet*, directed by Karin Baier, opening on Sat (tickets 0211-369811 information 0211-162200).

FRANKFURT

Frankfurt's annual music festival, organised by the Alte Oper, sees its biggest concentration of events this weekend. Starting tomorrow, youth orchestras from Israel and Britain give a series of morning, afternoon and evening concerts. Fri and Mon: Marcello Viotti conducts concert performances

of Leoncavallo's rarely-heard opera *I Medici*, with a cast led by Renato Bruson and Giuseppe Giacomini. Fri and Sat: Ivan Fischer conducts Budapest Festival Orchestra in two versions of Mahler's *Das Lied von der Erde*, the first by Schoenberg and the second Mahler's original. Among numerous other events over the weekend are a piano recital by Konstantin Scherbakov, concerts by the Cherubini and Cammina Quartets, and a performance of Schubert's *Winterreise* by Eberhard Büchner. The festival runs till Oct 6 (069-1340-400).

GOTHENBURG

Konsertthuset Tonight and tomorrow: Neeme Järvi conducts Gothenburg Symphony Orchestra in works by Beethoven, Dvorak and Tchaikovsky, with cello soloist Mischa Maisky (031-167000). Store Teatern Tonight, Fri, Sun, next Tues: John Copley's production of *L'elisir d'amore*, sung in Swedish. Tomorrow, Sat: Offenbach's *Orpheus in the Underworld*. Sep 24: premiere of new ballet by Robert North (031-131300).

HAMBURG

Musikhalle Tonight: Lorin Maazel conducts Bavarian Radio Symphony Orchestra in an all-Brahms programme. Tomorrow: Hamburg Chamber Choir in works by Brahms, Jani Christou and Schoenberg. Fri: Ulf Schirmer conducts concert performance of Gounod's *Roméo et Juliette*, with Ruth Ann Swenson and Francisco Araza. Sun morning: John Eliot Gardiner conducts North German Radio Symphony Orchestra

in Weill, Brahms and Strauss, with mezzo soloist Anne Sofie von Otter. Sun evening: Gerd Albrecht conducts Hamburg State Philharmonic Orchestra in Bruch, Weber and Liszt (040-354414).

LEIPZIG

CONCERTS Kurt Masur opens the 1993-4 Gewandhaus Orchestra season tomorrow with a programme of works by Georg Katzer, Bruch and Beethoven, with violin soloist Maxim Vengerov (repeated on Fri). Sun morning, Mon evening: Daniel Nazareth conducts MDR Symphony Orchestra in Beethoven and Tchaikovsky, with piano soloist Oleg Maisenberg. Sun evening: Andrey Nikolsky piano recital. Next Wed: Sviatoslav Richter plays Poulenc and Gershwin (0341-7132-280). OPERA The new season at the Opernhaus opens on Fri with a revival of Uwe Scholz's ballet set to Hayden's *The Creation*. Repertory in the opening week also includes John Dew's production of *Le nozze di Figaro*, Giancarlo Del Monaco's production of *Il trovatore* and Scholz's version of *Coppelia* (0341-291036).

MUNICH

Tomorrow at Gastelg, Sergiu Celibidache conducts the opening concert of the Munich Philharmonic Orchestra's new season. The programme consists of Beethoven's Fifth Piano Concerto (Daniel Barenboim) and Musorgsky's *Pictures from an Exhibition*. On Fri, Sun morning and Mon, Celibidache conducts Bruckner's Eighth

Symphony (089-4809-8614). The new season at the Staatsoper, the first to be organised by Peter Jonas, opens on Sep 18 with Günter Krämer's production of *La traviata*, starring Julia Varady (089-221316).

OSLO

Konsertthuset Tomorrow, Fri: Paavo Berglund conducts Oslo Philharmonic Orchestra in works by Grieg, Svanend and Nielsen, with violin soloist Arve Tellefsen. Next week: Berglund conducts Sibelius' *Kullervo* Symphony (2283-3200).

STOCKHOLM

Konsertthuset Tonight and tomorrow: Gennadi Rozhdestvensky conducts Royal Stockholm Philharmonic Orchestra in works by Nielsen, Rakhmaninov and Scriabin, with piano soloist Peter Jablonksi. Sat afternoon: Rozhdestvensky conducts symphonies by Nielsen and Tchaikovsky. Tues: Bengt Forsberg piano recital (tickets 08-102110 information 08-212520). Royal Opera Tomorrow: *Così fan tutte*. Fri: *Boccaccio*. Sat: Siegfried Köhler conducts first night of *Folke Abenius'* new production of *Elektra*, with a cast led by Lalla Andersson, Berit Lindholm and Anita Soldh (repeated Sep 14, 21, 24, 29). Mon: Cav and Pag. There will be performances of Beryl Grey's production of *Sleeping Beauty* on Sep 16, 17, 25 and 27 (08-248240). Berwaldhallen Fri evening, Sat afternoon: Evgeny Svetlanov conducts Swedish Radio Symphony

Orchestra in Shostakovich's Seventh Symphony (08-784-1800).

STUTTGART

The European Music Festival, organised by the International Bach Academy at the Liederhalle, runs till Sep 19 with a main event every evening, supplemented by late-afternoon lecture-concerts and late-evening recitals featuring distinguished musicians such as Helmuth Rilling, Malcolm Bilson, Robert Levin and Wolfgang Schöne. Tonight: Hiro Kurosaki plays violin sonatas by CPE Bach, Benda and Mozart. Fri: Stuttgart Chamber Orchestra plays Haydn and Mozart symphonies. Sat and Sun: Neeme Järvi conducts Gothenburg Symphony Orchestra. Next Tues: Charles Dutoit conducts Orchestre National de France, with violin soloist Shlomo Mintz. Next Wed: Alfred Brendel (0711-295551). This month's repertory at the Staatstheater is Parsifal, Die Zauberflöte and La bohème. The first new production of the season is the world premiere on Oct 3 of Hans Zender's second opera, *Don Quixote de la Mancha* (0711-221795). Between Fri and next Wed, the Stuttgart Ballet is in residence at the Ludwigsburg Festival with Die Zauberflöte, Maurice Béjart's choreography of the opera. The festival also includes a recital of violin sonatas on Sun, song recitals by Edita Gruberova and Renato Bruson (Sep 19 and 20) and concerts conducted by John Eliot Gardiner and Roger Norrington (Sep 21 and 23). The final event on Sep 26 is Verdi's *Giovanna d'Arco* in concert (07141-949610).

ARTS GUIDE

Monday: Berlin, New York and Paris. Tuesday: Austria, Belgium, Netherlands, Switzerland, Chicago, Washington. Wednesday: France, Germany, Scandinavia. Thursday: Italy, Spain, Athens, London, Prague. Friday: Exhibitions Guide.

European Cable and Satellite Business TV

(All times are Central European Time) MONDAY TO THURSDAY Super Channel: European Business Today 0730; 2230 Monday Super Channel: West of Moscow 1230. Super Channel: Financial Times Reports 0630 Wednesday Super Channel: Financial Times Reports 2130 Thursday Sky News: Financial Times Reports 2030; 0130 Friday Super Channel: European Business Today 0730; 2230 Sky News: Financial Times Reports 0530 Saturday Super Channel: Financial Times Reports 0630 Sky News: West of Moscow 1130; 2230 Sunday Super Channel: West of Moscow 1830 Super Channel: Financial Times Reports 1900 Sky News: West of Moscow 0230; 0530 Sky News: Financial Times Reports 1330; 2030

Edward Mortimer



The shape of Europe has been irrevocably changed by the collapse of communism. That was already so obvious at the time that it has become a cliché. But it may be only in 1993 that political leaders have begun to absorb that change. American leaders have stopped behaving as though Europe were their top priority. West European leaders have accepted, at last, the Copenhagen summit, that the associated countries in central and eastern Europe that so desire shall become members of the European Union.

The importance of the successful transformation of central and eastern Europe for western Europe's security is also a cliché. But its economic importance has been less emphasised of late, as the difficulties and risks of the process have come to be better understood. It is good therefore to be reminded, by the director of the Centre for European Policy Studies in Brussels, Mr Peter Ludlow, that "there is no other single source of hope for western Europeans as important as the rapid growth of central and eastern Europe".

Mr Ludlow makes the point in a paper entitled *Beyond Maastricht* (CEPS working document no 79, July 1993), which attempts to set the EC agenda for the next few years. It was finished a few days before the climax of the crisis in the European exchange rate mechanism. That will certainly provide fodder for the "revised and extended version" promised for October, but is unlikely to affect the main conclusions. The essence of Mr Ludlow's reaction can be divined from the following sentence: "If, despite everything, instability becomes the norm and the prospect of hanging on until 1997 or 1998 in a system such as the present one becomes unsustainable, an accelerated timetable towards a core monetary union would be preferable to a new era of floating..."

By itself, that would be little more than a desperate reiteration of Euro-orthodoxy. The originality of Mr Ludlow's approach lies elsewhere, in that he has not only grasped the new strategic context but integrated it into his vision of the EC/European Union's

The grand design

Europe needs to plan a wider union that is able to look after itself

future. This means that short-term planning has to be dominated by the timetable of enlargement negotiations with the Efta countries, while long-term planning must be undertaken both for and by (a crucial point) a wider Europe stretching eastward to the frontier of the former Soviet Union.

East and west should develop common strategies in the 'sensitive sectors'

and imaginary fears" of EC member states about competition from the east as the main constraint. He suggests that this be tackled head on: the two sides should work together to develop common strategies in the "sensitive sectors", including "a new common agricultural policy". Strong stuff, but as he says, "both sides are going to have to take far-reaching decisions about agriculture anyway. Why not, as prospective partners, prepare the ground together?"

As if that were not enough, Mr Ludlow goes on to point out the financial implications. "It is clearly unacceptable," he writes, "that the associate states which have now been accepted as prospective members should continue to receive financial assistance from the EC worth less than 10 per cent of the structural funds allocated to the four poorest member states." He urges an investigation of "the benefits for the

EC if it began sooner rather than later to treat the associate states according to the same criteria and on the same footing as it has already agreed to treat its own poorer regions".

Mr Ludlow anticipates the "response of hardened budget experts within the EC... that increases in the EC budget of the order needed are inconceivable", but brushes it aside as "a superficial and short-sighted judgment of the kind which opponents of the Marshall Plan... advanced in the United States after the second world war". The prosperity of eastern Europe, he concludes firmly, "is in western Europe's interest and the costs should be rapidly offset by the benefits".

In the shorter term, Mr Ludlow argues that the Maastricht revision conference scheduled for 1995 should be brought forward to 1993, as soon as possible after the French presidential election; and that the Efta candidate countries should be included in it, as Spain and Portugal were in the conference that negotiated the Single European Act in 1985. They, with whichever existing member states feel the need to do so, could then hold more or less simultaneous referendums on their accession treaties, including whatever amendments to Maastricht have been agreed, rather than subjecting to another series of cliffhangers like those of 1992-93.

Mr Ludlow is too hard-headed to adopt my proposal that the conference be replaced by an elected constituent assembly. But he does suggest that it should be preceded by a strategic review, to identify the threats or risks to European security in the new situation and the instruments (both military and economic) available to meet them. Those instruments include Nato, but arguments about the competence and value of Nato can no longer be a substitute for the development of a European capacity to deal with European problems.

As Mr Ludlow puts it: "Europe's leaders cannot at one and the same time bemoan the demoralisation which their failures in the former Yugoslavia have caused and run away from trying to develop a collective framework in which to deal with this and future problems."

The review, he suggests, should be set in motion by the special EC summit planned for late October. That will not be a moment too soon.

It is the kind of divorce that makes headlines. The Halifax, Britain's largest building society, last week announced it would sever its ties with one of the UK's largest insurance companies, Standard Life.

Citing irreconcilable strategic differences, Halifax said it would form its own life insurance company next year, whose products would be sold exclusively in its own outlets. The move is a blow to Standard Life, which totted up nearly a fifth of all its UK sales through the Halifax last year.

Standard Life thus becomes the latest - and largest - casualty of a trend which has seen the main life insurance companies frozen out of the high-street retail branches that helped them sell their products most cheaply.

Banks and building societies are eschewing the role of commissioned sales agent for leading insurers, and choosing to set up their own life companies. The development comes when, by all accounts, there is already far too much capacity in the industry and observers are predicting a shake-out.

Mr Tom King, general manager in charge of marketing at Standard Life, said: "I don't think the marketplace is big enough to hold all those companies which are out there." But the banks are not concerned about overcrowding in the market. Mr Michael Wadsworth, partner in the insurance practice at consulting actuaries E Watson and Co, estimates that the average insurance sales agent based at a bank or building society sells four to six times as many policies a month as the average sales agent who solicits business from customers in their homes or by telephone.

As a result, bancassurance - insurance products sold through banks and building societies - is a cheaper sales method than the traditional route. By the end of the decade, Mr Wadsworth forecasts, bancassurance will account for 30 to 40 per cent of the UK retail financial services market.

Banks have long been aware of their potential as insurance distributors. Mr Brian Pitman, chief executive at Lloyds Bank, recalled that in the 1950s Lloyds allowed branch managers to brook independent financial advice, pocketing the commissions they earned on each sale. "Some of them made more money as insurance brokers than they did as branch managers," said Mr Pitman. Lloyds Bank stopped the

Increasing bancassurance sales are at the expense of UK insurance companies, says Norma Cohen

Doors slam shut in salesman's face

Players in the game of life

| Source of new premium income (Jan-Mar 1993) | Annual premiums | | | Single premiums | | |
|---|----------------------------------|------------------------------|-------------------|----------------------------------|------------------------------|-------------------|
| | Non-linked assurance & annuities | Linked assurance & annuities | Personal pensions | Non-linked assurance & annuities | Linked assurance & annuities | Personal pensions |
| Independent intermediaries | 10.1 | 1.2 | 0.1 | 1.2 | 0.1 | 0.1 |
| Direct sales | 1.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| Insurance brokers, solicitors, accountants and others | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| Tied | 1.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| Bank sales (other self-employed or employed by life office) | 1.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| Bank and building societies | 1.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| Others | 1.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |

sales in the 1980s, but compensated its managers for the sums they earned selling insurance. The episode illustrates the potential of banks and building societies to act as the natural marketplace for retail financial products.

The current growth of bancassurance has its roots not only in commercial considerations but also in the regulatory framework governing UK financial services. The Financial Services Act, which took effect in 1986, led to "polarisation". Sales agents had either to "tie" themselves to one company by selling its products exclusively or remain "independent" by selling the best products from all providers.

Most banks and building societies realised that customers did not always recognise the difference between independent and tied advice. Tying themselves to one company earned the banks and societies more money, because insurance companies pay higher commissions to those selling their products exclusively.

It was only a short step for them to decide that having their own insurance operations and selling their own products was most profitable of all.

Mr Pitman of Lloyds said: "Our market research showed

that, if we sold our own products, our customers would buy them. And our analysis showed that underwriting would be more profitable than broking." Lloyds entered the business by taking a 60 per cent stake in Abbey Life in 1983, an operation that earned it more than a third of its profits last year.

Similarly, National and Provincial Building Society, which recently announced plans to combine with the Leeds to form Britain's third-largest society, earned 26 per cent of

withheld by the insurance company if the policy is cashed in early.

For long-term policies, consumers can lose up to the first two years of premium payments in administration charges and commission, and may have to pay premiums for 10 to 12 years to earn a full refund of all premiums paid on a 25-year endowment policy. Under the new rules, such information will have to be revealed to those shopping for a policy, from next year.

Mr and Mrs Homebuyer will fall off their chairs when they see those numbers," said Mr Roman Cizien, life insurance industry analyst at the stockbroker Smith NewCourt.

Bank and building society outlets have been most successful in selling endowment policies, because they also sold the mortgage that went with it. Homebuyers have been convinced that an endowment was the best option - even though it often led to higher monthly repayments without tax relief and to heavy penalties for early encashment. By 1991, some 60 per cent of all mortgages sold in the UK had an endowment policy attached.

Questions about the bancassurance strategy have been raised by one of Britain's largest

est building societies, which has severed its tie with a leading insurance company, saying it did not believe the insurer's staple product - endowment mortgages - was necessarily in its customers' best interests.

Mr Andrew Longhurst, chief executive of Cheltenham and Gloucester Building Society, Britain's sixth largest, said the society would not renew its five-year contract with Legal and General Assurance Society, under which C&G agreed to sell L&G insurance products exclusively. C&G decided to abandon retail financial products and concentrate on the sale of so-called interest-only and repayment mortgages, which are sold without the ancillary endowment insurance policy.

Industry observers point out that endowment policies have often been the principal product in a bancassurer's sales strategy. If the new transparency rules cause buyers to lose their taste for endowment mortgages, what will happen to the bancassurance approach?

Mr Wadsworth noted that bancassurers had been most successful with relatively simple endowments, unit trusts or lump-sum investment bonds. They had achieved less success at penetrating the growing market for personal pensions, which is more complex and which requires more sophisticated training of salespeople.

Industry statistics, produced by the Association of British Insurers, bear this out. While banks and building societies sold 21 per cent of unit-linked insurance policies in the UK in the first quarter of this year, they sold 5 per cent of annual premium pension products.

Mr David Prosser, chief executive of Legal and General, argued that while some bancassurers could not satisfy customers over the long term, "What the average consumer wants is someone to talk to about their problems and who will be around in five years to answer their questions."

Insurers are putting a brave face on the erosion of their distribution channels, and say they can make up lost sales by cultivating their personal relationships with customers and selling them a range of products over their lifetime. But the wave of mergers and acquisitions of small to medium-sized insurance companies is testament to the strength of the bancassurers and the inroads they have already made into the market.

LETTERS TO THE EDITOR

Number One Southwark Bridge, London SE1 9HL

Fax 071 873 5938. Letters transmitted should be clearly typed and not hand written. Please set fax for finest resolution

Science that provides no absolute answers

From Dr Sue Mayer.
Sir, In her article, "Greens' bogus science" (September 6) Brown Madrox attacks Brian Wynne and myself for criticising the way that science is used in environmental policy.

Brown Madrox's own analysis amply illustrates the issues by conferring a "rigour" on science which the Financial Times would never ascribe to economics. She concludes that there is a firm distinction between "needless worries" and "real threats". She implies this difference can be proved. In real life, science, like economics, is not like that. Nor is decision making.

The problem we and others have identified is that science is systematically abused by governments and industry in order to use its authority to disguise value judgments and policy decisions.

A common example is the use of the absence of data to imply there is nothing happening in the environment: for example, the now discredited principle of "dilute and disperse" was justified because sulphur emissions or sewage discharges were diluted to the point of immeasurability.

Similarly, the UK government measures radioactive emissions, but it assumes that a one in 10,000 risk of dying as a result of radioactive discharge is acceptable: the measurements are scientific but the definition of the problem (a "real threat" or a "needless worry") is not.

Brown Madrox claims that the proposals for a precautionary approach "destroy any notion of proof". In reality, scientific proof of safety is already unobtainable and it is in the face of this that we propose the implementation of a precautionary approach. We should use the best scientific knowledge available to us to make decisions but not ignore its limitations in favour of vested interests.

Sue Mayer, director of science, Greenpeace UK, Canonbury Villas, London N1 2PN

Britain well out of social 'shackles'

From Mr Richard Brown.
Sir, At last European Commissioner, Padraig Flynn, shows the Commission's true colours on social policy ("Brussels to side-step UK on works council issue", September 7). In backing the absurd notion of a World Social Charter, he is again pushing the idea that if we cannot compete effectively then everyone should be equally handicapped with higher employment costs. Those saddled with the high

costs of implementing the Social Charter are now waking up to their loss of competitiveness in relation to the Pacific Rim. Their response has not been to throw off the shackles, but to call for the same costs to be imposed around the world. The UK is well out of it. Richard Brown, deputy director general, Association of British Chambers of Commerce, 9 Tufton Street, London SW1P 5QB

BR's secret pot of gold?

From Mr Graeme P. Thomson.
Sir, I am afraid that John Welsby, BR chief executive, railways (Letters, September 1), missed one major potential source of revenue for BR - actually enforcing the purchase of tickets by the travelling passengers. As a commuter who travels extensively on the rail network, I have become increasingly concerned and annoyed at just how easy it is to evade paying fares. I recently kept a regular log of when I was asked to produce my ticket. Over a three-month period the

average was once every four days; on one occasion it was once in 16 days.

It is clear that there has recently been a heavy fall-off in the number of station ticket-collecting staff and of stations at which staff are present, especially early morning and late evening. Penalty fares are no real deterrent at £10 a time. Are the uncollected revenues a secret pot of gold to encourage privatisation operators to bid for franchises?

Graeme P. Thomson, 197 Kings Hill Road, Beckenham, Kent BR3 1LL

UK exporters need more diplomatic back-up

From P P Kennedy.
Sir, Your Observer column, "Sundown in the east" (September 1), drew attention to the fact that the UK has far fewer diplomats in the Commonwealth of Independent States than its main commercial competitors.

On behalf of British contractors working in international markets, I would like to say that I share the concern of your columnist at what appears to be a dangerously short-sighted approach to important potential markets of strategic significance.

In countries such as those of the CIS, where many companies are taking their first tentative steps to build up a network of local knowledge and experience, diplomatic help on the ground is vital. If British contractors are to establish themselves in these new markets, an increase in diplomatic representation is essential. In many of the CIS states, govern-

ment officials are accustomed to dealing with civil servants and diplomats from other governments and it is important that the UK has representatives of a high standard in place. This must not be done, of course, at the expense of existing representation in other developing areas where a continuation of political and commercial advice is equally important.

In 1991 the construction industry generated business worth some £7.6bn in total exports for the UK, and the recent steps taken by the government to reduce some of the difficulties faced by British exporters are very welcome. These measures have included extending the availability and increasing the extent of cover for export credits and reducing premiums, and launching a major initiative to identify and second export market specialists from industry to the Department of Trade and

Industry. It does seem perverse, therefore, for a government that has recently expressed and demonstrated its support for exporters to follow at the same time a policy of limiting diplomatic representation in potentially rewarding markets.

Is this a case of the foreign office pursuing its own agenda, or is it simply a matter of Treasury penny pinching? What is obviously required is greater co-operation between Whitehall departments to ensure that adequate representation is present in the CIS states to enable exporters to take advantage of the greater assistance offered from the Department of Trade and Industry.

F M Kennedy, president, The Export Group for the Construction Industries, Kingsbury House, 15-17 King Street, St James's, London SW1Y 6QU

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FINANCIAL TIMES

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Wednesday September 8 1993

Regulating the regulators

AN IMPORTANT sub-plot during the Monopolies and Mergers Commission investigation of the gas industry was British Gas's attempt to curb its regulator's power. As the full MMC reports published this week show, British Gas pressed the line that its regulator Ofgas was aggressive, unpredictable and strident. The MMC rightly rejected the company's more extreme criticisms, concluding that the system was fundamentally sound. But it did suggest that a broader review of utility regulation might be in order.

The idea is a good one. But before embarking on any such review, it is important to appreciate that there is no regulatory crisis. Utilities have not been reduced to quivering wrecks by overnight regulators. If anything, they have been able to earn handsome profits at the expense of the consumer.

There have, of course, been rows. But these are not evidence of regulators running amok. Rather they are the consequence of strong personalities such as Sir James McKinnon, Ofgas's chief, battling for consumer interests against utilities which have naturally wanted to cling to monopoly profits. It is no accident that the biggest rows have been in gas and telecommunications, which were left as integrated monopolies when privatised rather than being split up. If regulators' wings were clipped, they would be less able to ensure fair treatment for consumers.

Similarly, the criticism that there is no adequate appeals process against regulatory decisions is exaggerated. On most important issues, a utility can appeal to the MMC. The fact that British Gas has been able to persuade the MMC to recommend relaxation of some of its regulatory controls shows that the checks and balances are working.

Nor is the argument that regula-

tors have too much discretion convincing. It is true that in some respects regulatory discretion is wide. But what is the alternative? A more legalistic system is used in the US. But the consequence has been that utilities have used their greater financial resources and control of information to tie their regulators in knots. Another possibility would be to hand regulatory power back to ministers. But that hardly seems a good idea when one advantage of privatisation has been to reduce political interference in commercial decisions.

The more telling criticism of the system is its lack of openness. Often regulators fail to give reasons for their decisions, too many of which are taken behind closed doors. As a result, it can be difficult for interested parties to influence and challenge regulatory decisions.

But regulators are not solely responsible for secrecy. Utilities have often tried to prevent the publication of detailed financial information that lies behind regulatory decisions on grounds of commercial confidentiality. Moreover, there are signs of improvement. Ofwat has been a model of consultation in its preparation of new price controls for water companies, while Ofel is about to experiment with a roundtable seminar to determine telecommunications interconnection fees.

Undoubtedly more needs to be done and this is why the government should take up the MMC's suggestion of a broader review, which could draw up a code of practice as British Gas has advocated. One candidate to conduct such a review would be the MMC itself. But since its powers and procedures should ideally also be examined, a better candidate would probably be the Office of Fair Trading. Either way, given that secrecy is the current system's main defect, the review should be open.

Job for Mr Hunt

THE BRITISH government may not have finished with the trade unions yet. As the increasingly depressed and depleted band of brothers and sisters confers this week at the annual Trades Union Congress, Mr David Hunt, employment secretary, is saying that options for further curbs on union activities are still being reviewed.

However, if the government continues to pursue the unions, it will find itself engaged in an activity yielding diminishing returns. The quest to strengthen individual employment rights and, at the same time, cut the red tape that business deplores, could be conducted more profitably elsewhere.

Mr Hunt should look first at the creating industrial tribunal system which - as reported in the Financial Times yesterday - is currently failing employers and employees alike. What was supposed to be a quick route to justice has become bogged down in legalism and excessive delays.

The recession and an increasing awareness by workers of their rights has led to a sharp increase in the number of cases registered. In 1990-91, there were about 43,000 applications to tribunals; for 1992-93, the figure stood at just under 72,000. Half of these cases have to wait six months to be dealt with - and in London delays of a year are not uncommon.

As the jurisdiction of tribunals

continues to widen with each new piece of employment legislation, and rulings from Brussels and Luxembourg further complicate matters, the system is beginning to buckle. It is time for a fundamental review by the government of options for reform.

Three proposals, in particular, should be given serious consideration. First, the current arrangements which require representatives of both employers and employees to sit alongside a legally qualified tribunal chairman in almost all cases should be re-examined. Speedier and cheaper would be to appoint one specialised and highly qualified individual who could adopt a more inquisitorial approach.

Second, as the Engineering Employers' Federation has suggested, the range of case law built up over the last 30 years could be replaced by a set of modern codes of employment practice. Tribunals would refer to the codes, freeing both employers and applicants from the need to employ lawyers in almost all cases.

Finally, where both sides agree, arbitration, perhaps under the auspices of the Advisory, Conciliation and Arbitration Service, could be made available for individual employment grievances - a move which would help to relieve the pressure on the tribunals.

Green agenda

EMOTIONS about the environment run deep, as the FT's posting in response to a summer series of leading articles about green issues has demonstrated.

The core of our argument has been that the costs and benefits of environmental policies must be established as precisely as possible and that priorities should be set on the basis of these calculations and judgments. This is the inescapable task of the next phases of environmental politics, which must try to implement the raft of regulation which governments have written in the last two decades. Everyone should consider that legislative effort a success; we should also learn from it.

The costs of going green need to be made explicit, particularly as recession has deepened reservations about meeting the bill. If people are ignorant of price, their environmental demands may be limitless. But when UK water companies this summer asked their customers where they would like money spent, the results confounded those who say that customers cannot make hard environmental choices. More on getting lead out of drinking water, even at the expense of better sewage treatment, was the clear answer.

Governments and pressure groups also need to do a better job of helping people judge which trends pose the greatest risk to

their health. One global "danger" after another has provoked anxiety: from over-population to food and energy shortages, to ice ages and then global warming.

Some of these have stood the test of time more than others: the risk of global warming, the FT has argued, should head the current list. Some look overblown, such as fear of nuclear power, genetic engineering, ozone holes or loss of species. The UK's Health and Safety Executive, a government agency, has published perceptive reports pointing out that people's fears often correspond poorly to the risk of disaster.

There are limits to the precision with which economists can value environmental preferences, but those who resist attempts to price the environment are more often than not wishing, undemocratically, to impose their preferences upon others.

The public has shown strong support for green issues in the past two decades; in the past two years it has also shown realism about the costs. But a healthy debate requires accurate information about the state of the environment, which governments have frequently failed to provide. The green wish list is long and there is no sign that the world is willing to pay for all of it.

Previous articles: July 21, August 2 and 19 and September 1.

Outsiders have long been bemused by the tendency of Israelis to liken their own prime minister, Mr Yitzhak Rabin, to France's General de Gaulle. But as the Israeli populace awakens with a mixture of anxiety, cynicism and fragile hope to the possibility of Arab-Israeli peace, it is beginning to look as if the comparison is not far from the mark.

As French president in the 1950s and early 1960s, De Gaulle fought a brutal war against Algerians seeking to shake off colonial rule, then sat down with the Front de Libération National (FLN) to negotiate peace. Now the 71-year-old Mr Rabin, who is also minister of defence, is shuffling his way to a similarly historic deal with the Arabs with whom Israel has been in conflict since its foundation in 1948.

The next few days should see the signing of an agreement between Israel and the Palestine Liberation Organisation - a movement consciously modelled on the FLN - that will permit Palestinians in the West Bank and Gaza Strip, under Israeli occupation since the 1967 Middle East war, to take incremental control of their own affairs.

As important, the two sides may exchange letters of mutual recognition in which PLO leaders will renounce violence and call a halt to the *intifada*, the six-year-old Palestinian uprising in the territories - thus setting out together down a road that could lead to an independent Palestinian state.

In embarking on this course, Israel's Labour-led coalition government is not to crack the issue of the Arab-Israeli conflict. If it succeeds, the Israeli government and the PLO will have broken the logjam obstructing progress towards a wider peace between Israel and the Arab states to its north and east.

And the vision that some Israeli leaders have dreamed of for years - a Middle East devoted to economic co-operation rather than condemned to war - could start to move into sight. Small wonder that the Tel Aviv stock exchange has this week been hitting all-time highs.

The enthusiasm is, of course, somewhat premature. A lot could still go wrong on all sides. For the time being Mr Rabin, a cautious and hard-headed man, is sensibly keeping himself to bare public statements about the need for "painful compromises" with hated enemies and leaving his foreign minister, Mr Shimon Peres, who negotiated the PLO deal in Norway a fortnight ago, to make all the running.

Other Israeli leaders, from President Ezer Weizman down, are warning that the hard part - negotiation of detail on security arrangements in the occupied territories, and the separation of peoples whose lives have become horribly entwined in the past 25 years - still lies ahead. "We've just broken through the barbed wire," the head of state said this week, deploying a characteristically homespun military metaphor. "It's the hardest part of the battle when you start to break through."

But the negotiating process has now established such momentum that it is difficult to see how Israel, the PLO or sceptical Arab states such as Syria could revert to business as usual even if the advance gets bogged down.

In Israel, the prospect of peace agreements has burst forth so suddenly that the public is still dazed. Right-wing opponents of the deal with the Palestinians, such as Likud party leader Mr Benjamin Netanyahu, are mustering their forces, accusing Mr Rabin of negotiating a deal that will mortally endanger Israel's security. Jerusalem is festooned with banners proclaiming virulent opposition to Israeli withdrawal from the Golan Heights, a strategic slice of Syrian territory also seized in 1967. And last night, radical Jewish settler groups from the occupied territories were setting out to barricade Mr Rabin in his office for 24 hours in protest.

But the opposition is divided,

Fragile hopes light the horizon

The Israeli-PLO rapprochement could lead to a wider peace in the region, writes Andrew Gowers



Peacemakers: Israeli foreign minister Shimon Peres, prime minister Yitzhak Rabin and the PLO's Yasser Arafat

have become horribly entwined in the past 25 years - still lies ahead. "We've just broken through the barbed wire," the head of state said this week, deploying a characteristically homespun military metaphor. "It's the hardest part of the battle when you start to break through."

But the negotiating process has now established such momentum that it is difficult to see how Israel, the PLO or sceptical Arab states such as Syria could revert to business as usual even if the advance gets bogged down.

In Israel, the prospect of peace agreements has burst forth so suddenly that the public is still dazed. Right-wing opponents of the deal with the Palestinians, such as Likud party leader Mr Benjamin Netanyahu, are mustering their forces, accusing Mr Rabin of negotiating a deal that will mortally endanger Israel's security. Jerusalem is festooned with banners proclaiming virulent opposition to Israeli withdrawal from the Golan Heights, a strategic slice of Syrian territory also seized in 1967. And last night, radical Jewish settler groups from the occupied territories were setting out to barricade Mr Rabin in his office for 24 hours in protest.

But the opposition is divided,

with Likud still smarting from a divisive leadership election. What is more, there are growing signs the right is out of touch with the Israeli mainstream. The settlers number only 4 per cent of Israeli Jews, and even some of them are resigned to giving up their homes.

While the fears and uncertainties should not be underestimated, most polls show a clear, if narrow, majority of Israelis backing the current peace deal. In time, if Israelis and Palestinians show they can co-exist as equals, the majority could even become substantial enough to permit the territorial compromises that will be necessary to achieve a final settlement of the conflict.

"There is a general mood in the country that the present agreement in principle is something we should support because we are tired of wars," said Professor Shlomo Ben-Ami of Tel Aviv University. "People are worried, they want to know more about what is going on. But basically the majority of Israelis have turned against strong ideological positions."

This week's events are the product of a long and painful evolution of Israel as well as Palestinian opinion, and of a remarkable political double-act between Mr Rabin and Mr Peres, two men who cor-

dially detest one another and who respectively represent the hawkish and doveish faces of the coalition elected just over a year ago.

A country that has lost 18,000 dead in Arab-Israeli wars cannot find it easy to contemplate peace. A people almost eliminated in the Holocaust still lives in fear - sometimes justified, sometimes irrational - for its existence. And the Palestinians, the people dispossessed of a country when the Jewish state was born, have long been the incarnation in Israeli eyes of the forces that threaten the country's survival.

That Mr Rabin now seems prepared to concede that the beginnings of the state they denied themselves in rejecting the 1940s partition of Palestine reflects more than war-weariness. It constitutes an existential choice, born of the *intifada* and the realisation that an Israel could not afford, financially or morally, to seek indefinitely to control the territories and their 1.5m Arab inhabitants.

Maintaining a hated military occupation is a burden that a small state with a vigorous democracy and a desire for international acceptance could not bear for ever. And the uprising was a vivid expression of the Palestinians' desire for political rights of their own.

As a senior government figure put it yesterday, Israel had to decide: it could grant them such rights as Israeli citizens, thus becoming a binational state; it could expel the Arabs from the West Bank and Gaza as urged by voices on the extreme right, and in the violent process destroy its moral legitimacy; or it could practise a form of apartheid by openly treating them as second-class citizens. "Judaism and racism are in contradiction by their very essence," said the official. "Any such idea would mean we were not a Jewish state."

Or it could allow the Palestinians to rule their own lives as a separate people. "No doubt they are an entirely different entity from us - religiously, politically, you could even say nationally," the senior official added, in a sign of how far government thinking has moved.

The road to that separation is complex and perilous. The proposed interim self-rule agreement is supposed to start with a redeployment of Israeli troops from Gaza and an area around Jericho and an early hand-over of powers in those areas to a Palestinian authority. Much detail, such as how Israeli forces still present to protect Israeli settlers will work with a proposed Palestinian police force, has still to be negotiated. Opposition to the deal among Palestinians is such that the result could be horrific intra-Arab violence, and nobody has come up with a plausible answer as to how Israel would respond.

There is also a danger that the politics could turn sour - especially if Mr Yasser Arafat, PLO chairman and self-styled president of Palestine, claims his state before the Israelis are ready to discuss it, or seeks to pre-empt the ultra-sensitive question of Jerusalem, claimed by both sides as their capital.

But as both sides keep acknowledging, this is very much an interim agreement in which such issues are left for final negotiation in a few years. If it is signed, both sides will have an enormous incentive to make it work, not least by improving the economic lot of the Palestinians in the territories and combating the Islamic fundamentalism that breeds in the slums of Gaza. If they do, it is more than likely that Palestinian statehood - possibly in a loose confederation with Jordan - will be up for discussion before too long.

And at that point Israel would be well on the way to attaining the status so long denied it - that of a normal state at the heart of the Middle East, able to devote its considerable intellectual and commercial talents towards sorting out its economic problems and taking a leading role in the development of its neighbourhood.

Lines drawn for mobile warfare

Andrew Adonis on growing rivalry in the phone market

Until now, competition in the UK cellular phone industry has done little to contain excessive profits. If Mercury One-2-One, the new network launched yesterday, continues as it has started with its offer of free calls, the industry's licence to print money may be cancelled. But it is far from certain that, as a result, the mobile phone will compete head-on with the fixed-line phone in the immediate future.

Yet Lord Young, chairman of Cable and Wireless, declared BT was the "real target" when he unveiled One-2-One. He said anyone would be "mad" to use a BT fixed phone in preference to a One-2-One cellular phone for local calls in the evening and at weekends.

Mad, up to a point. Local calls on the One-2-One network will be free at weekends and after 7pm on weekdays. The offer only applies if you live in the London area. One-2-One is expanding rapidly, but it will be another two-and-a-half years before it has national coverage.

However, One-2-One is "free" only

after you have bought a handset for at least £250 and paid a monthly fee of £14.69. Fixed-line phones sell for a tenth of the price, and BT's monthly line rental is £7.65.

Furthermore, to make a One-2-One local call on the personal consumer tariff at 6pm rather than 7pm, you pay through the nose. It costs you £2.94, against 15p on BT. True, that is BT's off-peak rate, but go back to 3pm and the BT price rises only to 40p. For national calls you will also pay a hefty premium on One-2-One, before or after 7pm.

Most private consumers, then, would be mad to see One-2-One or any other mobile service as an economic replacement for a fixed phone. Lord Young's free local calls are nevertheless more than a gimmick. For the first time, the marketing of mobile phones is being pitched at the domestic consumer, not just the business user. In the process, One-2-One is bringing extra competition to an industry

desperately in need of more.

Mercury One-2-One is in fierce competition with the two existing mobile operators, Vodafone and Cellnet, not with BT's national network. As the mobile phones enter the consumer market, they will be

For private consumers a mobile service is not an economic substitute for a fixed phone

an extra, not a replacement for a fixed line phone. Indeed, as a fixed-line operator, Mercury is trumpeting the virtues of the cable companies, which are creaming private consumers from BT in urban areas on the basis of still lower fixed-line call tariffs.

Until now, neither Vodafone nor Cellnet have seriously attempted to

market their wares to private individuals. They have not needed to. With operating profits at nearly half of sales, it has been enough for them to assemble the growing number of business customers who regard a mobile phone as essential.

Low-user tariffs, introduced by Cellnet and Vodafone last year, gave reduced subscriptions in return for even higher call charges, but they were of appeal mainly to a different segment of the business market. Vodafone's low-user tariff accounts for only 106,000 of its 595,000 customers.

Three things are needed for a large consumer cellular market: networks which can handle high volumes, and affordable entry charges and call tariffs.

The first condition is now fulfilled. One-2-One is just one of several high-capacity digital networks coming into service. Vodafone launched its EuroDigital network earlier this month; next month it

unveils a MetroDigital service aimed mainly at the local market. Cellnet launches a digital network next year.

It is only a matter of time before high digital handset prices - the main barrier to consumer entry - start to tumble. Handsets for the old analogue networks are already as low as £70. Manufacturers suggest it will take two-to-three years to get digital handset prices down from £250-£400 to under £100.

That leaves call tariffs, which Mercury has started to ease in anticipation of One-2-One, earlier this summer Vodafone announced tariffs for its new MetroDigital network which were lower than any it had set before. Cellnet sharply cut prices in London last week. Expect further reductions soon.

Meanwhile, BT is a not a completely idle onlooker. It has a majority stake in Cellnet. And it can ill afford to be semi-detached from the cellular industry if, a few years hence, One-2-One's prices make mobile phones a real competitor to the fixed-line.

Economically speaking

It may have lost a good number of general elections recently but no one can say the British left lacks tenacity. Today sees the launch of yet another attempt to get its economic message across.

New Economy, a 32-page quarterly described as half journal, half magazine, sets out to reconquer the field of easily understandable economic writing ceded during the 1980s to such right-of-centre publications as *Economic Affairs*.

Produced by a left-wing think-tank - the Institute for Public Policy Research - New Economy strikes a suitably populist note, banning the algebra and footnotes that sometimes pepper learned economic journals.

The aim is "to be lively and have meat", says editor Dan Corry, a former Treasury official and adviser to the Labour party front bench.

He believes New Economy will appeal to non-economic specialists and A-level students. But it does not neglect academics. Thanks to Simon Wren-Lewis, professor of macroeconomic modelling at Strathclyde University, it will make a regular feature of a new stimulus economic model with the unsexy name of Compact, which will offer a guide to UK economic policy.

There is little doubt that the launch issue's 5,000 print-run will be eagerly snapped up; the

publisher, Academic Press, is giving it away.

But the big test will come - as ever - when punters have to vote with their cheque books. In early 1994, New Economy will go on sale by subscription at rates of up to £56 a year.

Chat-up line

Lord Young, chairman of Cable and Wireless, was brimming with confidence at the launch of Mercury's One-2-One cellular phone service yesterday.

He enthused about the merits of its free off-peak local calls and lamented that the system had not been available when his children were teenagers.

When suggesting people could talk all night he did, however, gloss over the fact that the phone's battery only lasts 55 minutes. Fortunately, of course, replacements are available at extra cost.

Poetic justice

The annual Trades Union Congress has long been a dispiriting affair; this year's in Brighton is no exception. The proceedings are passionless and rigidly stage-managed. The conference has had its moments though, including one memorably poetic exchange yesterday.

Summing up a debate about labour legislation, Jimmy Airlie,



"Book me a restaurant - but make sure it's outside the M25"

the AEEU's national officer in Scotland, ended by quoting from the *Mask of Anarchy* by Percy Bysshe Shelley:

"Rise like lions after slumber in unvanquishable number - Shake your chains to earth like dew Which in sleep had fallen on you."

But Arthur Scargill, the miners' leader, arguing for more militant opposition to the government's employment legislation, pointed out that Airlie had missed the final line of the verse: "Ye are many - they are few."

It is no coincidence that the two men know that verse from the

revolutionary old Etonian poet so well. It once adorned the membership card of the Young Communist League - of which both were members.

Close encounter

The travails of public transport. A familiar looking character sitting on a tube was approached by a stranger. "Excuse me sir, are you Norman Lamont?" "Yes," said the former chancellor, with a smile. Taking a deep breath, the stranger continued: "Well, I'd just like to say that you ought to be ashamed of yourself for the hardship and poverty you have caused millions of people in this country." "And the rest of the world," responded Lamont.

But British womanhood likes to see fair play. A fellow passenger tut-tutted. "That's not a widely held opinion," she said.

Canada dry

By her own admission, Kim Campbell has little in common with the stereotypical vest-clad Canadian nursing his beer in front of the television. But Canada's cello-playing prime minister is now working hard to shed her image as an aloof and testy intellectual, ahead of the general election which she is expected to call today for October 25.

Campbell has spent the past few

weeks putting in appearances at baseball matches, barbecues and even a Highland dancing festival; her impish sense of humour has been much in evidence. She told one group of supporters that she has had difficulty since the 17 meeting in Tokyo last July fitting the prime ministerial bottom into the prime ministerial skirt.

The question is whether such *bona mots* will be enough to swing voters behind her Conservative party in the election.

The Liberals' leader, Jean Chretien, 60, has followed Campbell's lead in putting style above substance. Stung by criticism that he is yesterday's man after 30 years in politics, Chretien made sure photographers were on hand recently to record him churning up the waves on a single water-ski.

Splinter group

The young people who occupy British academic towns in the summer in order to learn English are now homeward bound. As the season draws to a close, the EFL Gazette, a teachers' newspaper, announces the winner of its Last of the Summer Whims Award. It goes to the student making the most original complaint about his or her stay in the UK.

The winner this year, a Swede, asked new surreal standards. She asked to be moved from a Bristol family because they gave her a wardrobe that smelled of wood.

Rexrodt gives cautious welcome to west German GDP recovery

By Quentin Peel in Bonn

THE German economy's downward slide appears to have bottomed out, with the latest figures for west German gross domestic product showing a 0.5 per cent recovery in the second quarter.

While the year-on-year figure still shows a decline of 1.9 per cent in GDP compared with the same period in 1992, the 0.5 per cent quarter-on-quarter advance is the first sign of recovery after four periods of negative or zero growth.

The figure, released by the economics ministry yesterday, comes on top of industrial order figures for German manufacturing industry published on Monday, which showed a 3 per cent recovery in July compared with June, reflecting primarily a 4.5

per cent pick-up in domestic orders.

The latest statistics were greeted with cautious optimism yesterday by Mr Günter Rexrodt, economics minister, although he admitted it was "premature to interpret the recent slight upward movement as a clear signal that we have reached an economic turning point."

"It shows that the first rays of light indicating the end of the recession are now unmistakable," he said.

Year-on-year, the figures published by the federal statistics office in Wiesbaden still show some dramatic declines in economic activity. In constant prices, capital investment was down 17 per cent in the second quarter, compared with the same period in 1992, and exports of goods and services fell by 8.3 per

cent. In contrast, construction investment advanced by 1.5 per cent in constant prices.

Mr Rexrodt said caution was still necessary because of the unchecked decline of both private sector investment and exports. But he referred to the improved business mood, lower interest rates, the clear slowdown in the rise of unit labour costs and the recovery in industrial orders as signs of "at least a stabilisation of economic activity" and reason to expect a gradual recovery.

He warned that the stabilisation would not mean an immediate slowdown in unemployment. Unemployment in west Germany reached 7.5 per cent, or 2.3m, in July.

The latest figures provided welcome relief for the German government to coincide with the first

reading of the 1994 budget in the Bundestag, the lower house of parliament, yesterday. Mr Theo Waigel, finance minister, launched a strong defence of his plans for spending cuts of more than DM200bn (\$120n), to be made in the DM478.4bn budget.

He said that without strict savings and consolidation the government would have become unable to defend itself either nationally or internationally. He pointed to the D-Mark's strengthening since midsummer as a sign of international confidence in German fiscal and monetary policy.

The budget savings, which hit social spending most directly, were bitterly attacked by the opposition Social Democrats, as an onslaught on the poorest in German society.

Failure to create jobs fuels consensus for change among member states EC backing for lower-cost workplace

By Lionel Barber and David Gardiner in Brussels

EC MEMBER states are rallying behind the banner of labour market deregulation, including more flexible working hours and lower costs for employers, as the recipe for restoring growth and halting Europe's decline in competitiveness.

A consensus in favour of change has emerged in working papers sent to the European Commission in Brussels, although member states remain wary of backing measures that might be interpreted as dismantling Europe's generous welfare state provisions.

The competitiveness debate inside the EC has gathered pace amid growing concern about Europe's failure to create jobs

and the rising level of unemployment. It has been given an added piquancy by a concerted effort from the UK government to woo German support for a post-Maastricht agenda for the EC.

Mr David Heathcoat-Amory, British minister for European affairs, yesterday called for an end to "dreaming about a single [European] currency" and more attention to the pressing issue of competitiveness. He also launched a fierce attack on the use of EC "structural funds", which he suggested created "a culture of dependency" among poorer states.

In a speech to the European Policy Forum in London, the British minister's call for more scrutiny of the EC budget and less interference from Brussels appeared to be a calculated effort

to play on latent German resentment at being the paymaster of Europe and its desire for more "subsidiarity".

Mr Heathcoat-Amory said structural funds, which account for a third of the present EC budget (\$77bn) annual EC budget, had siphoned money to poorer regions in the Community; but they had also had a negative impact. They might have contributed to Portugal's rise in inflation and balance-of-payments difficulties in the 1980s, through increased imports.

He added: "Greece has yet to show corresponding macro-economic benefits in terms of GDP growth from structural funds; if anything, the gap between it and the Community is growing."

The minister's speech also attacked Mr Jacques Delors, who,

as European Commission president, offered initial ideas on boosting European competitiveness to the EC summit last June. In spite of a good diagnosis, "it prescribed medicines which were a mixture of the expensive, the unoriginal and the inadequate".

In his paper, Mr Delors favoured new spending on research and development, better training, a lifting of restrictions on private employment agencies and a more concerted effort to reach the economic convergence necessary for European monetary union. He is to develop those ideas in a December white paper.

In other working papers, Denmark is calling for more flexible labour markets, "without sacrificing the social protection of the citizen", including the Maastricht treaty's social dimension.

Piëch says Volkswagen is a 'duck grown too fat to fly'

By Christopher Parkes in Frankfurt

VOLKSWAGEN, Europe's biggest volume carmaker, is a duck that has grown too fat to fly, according to chairman, Mr Ferdinand Piëch.

But it has sprouted a new feather - a DM12m (\$7.2m) group profit in July - and more are growing all the time, he told the Financial Times yesterday.

All the profit, compared with a DM1.6bn loss in the first half of the year, stemmed from improvements at the German parent company, where Mr Piëch and his production director, Mr José Ignacio López de Arriortúa, have focused most of their efforts.

The workforce had responded with stunning enthusiasm to the implementation of a refined continuous improvement pro-

gramma, Mr Piëch said. Productivity targets for this year in German plants had been achieved in only six months.

But Seat, the Spanish subsidiary, is one of the main causes of Mr Piëch's recent retreat from confident forecasts of the group's breaking even this year.

He limited his forecasts to a promise that the parent company, which earned a net DM447m last year compared with group earnings of DM147m, would show a profit for 1993.

Seat is believed to be heading for a deficit of about DM1bn after a loss of DM180m last year. The company has said it wants to trade its Pamplona plant, which manufactures VW-brand Polo cars, and its financial services division in return for a life-saving cash injection from the parent.

Mr Piëch, however, appeared

unenthusiastic about the idea, or at least about the way Seat had aired its plan in public. "They have to offer it to me first," he said.

A special audit of the subsidiary's accounts is understood to be currently under way.

Mr Juan Antonio Diaz Alvarez, Seat chairman, blamed his company's plight mainly on the slide in the peseta's value in the past 12 months from Ptas2 to the D-Mark to Ptas83.

Investments in Spain of almost DM6bn had been financed in US dollars and D-Marks, he said. Meanwhile, car sales were improving month by month, and the new plant at Martorell, burdened by start-up costs, was building up to full capacity, he added.

Frankfurt Motor Show, Page 18

Former Soviet republics bow on rouble

Continued from Page 1

hyper-inflation, would sign any such pact in the near future.

A third option is for a slow-track economic union, which makes no mention of a common currency and allows a 10-year period for its construction. It has already been approved by most commonwealth republics as the bare minimum of what they hope to achieve.

Mr Fyodorov also said Russia was not relying on any new foreign finance before the end of the year. His announcement follows indications that the IMF will not be disbursing new credits Russia had hoped to receive this autumn. He estimated roughly that Russian central bank reserves came to \$60n, another \$100n was held in Russian banks, with another \$30n-\$40n circulating as cash.

THE LEX COLUMN

Upwardly mobile

Cellular phones may not have reached the *sans culottes* yet, but One-2-One looks like a natural for Essex man. Whatever Mercury's protestations that the service is aimed at BT's mass market, the natural locus of users is the small business or sole trader and higher end domestic customer who would value mobility. The clear publicity coup of free local calls to off-peak periods will grab headlines and doubtless fire the aspirant imagination. It may also ease the pain of forking out around £300 for a handset, though even that may not be spent of a barrier, given the large sums spent on other domestic games.

While the target group and pricing will help expand the telecoms market, One-2-One will hurt other operators. Despite the smoke thrown up by Vodafone and Cellnet to confuse price perceptions, existing cellular tariffs will be increasingly seen as excessive. The best tactic may be to cede market share to the new entrant as long as the loss of customers is not too great. Yet lower margins will come. What is less certain is whether Vodafone or Cellnet can expand their markets fast enough to compensate for the fall. If they cannot, current valuations look high, whatever AT&T may have paid for McCaw.

BT cannot entirely ignore the threat either. The two trends in telecoms - more cable and multimedia in fixed links and increasing mobility for voice - are both attractive to BT's wealthier customers. BT thus faces a competitive challenge to its best prospects. Since it is currently banned from cable, it had better make the most of mobile. Yet Cellnet has always been a laggard. It may be time for BT to get a better grip.

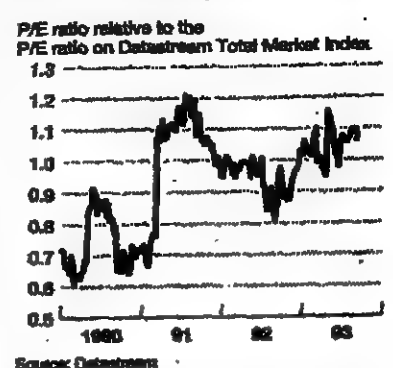
Williams Holdings

Ever since the failure of its bid for Racal, Williams has been bereft of direction. A low share rating has curbed its acquisitive inclinations and the company seemed in any case uncertain of its ability to clinch a large deal at the right price. Instead it has kept its head down in the hope of raising its rating with a spot of organic growth. Yesterday's interim figures were not good enough to meet this aim. Underlying cash-flow has improved, but operating profits were up less than 5 per cent and gearing is 58 per cent.

Now Williams aims to improve its image further by focusing on building and consumer products, and fire and

FT-SE Index: 3038.6 (-20.4)

Williams Holdings



Source: Datascope

safety. The implication is that its two other divisions - electronics, which is heavily dependent on the German car industry, and engineering, which suffers from the erratic flow of defence orders - could be sold. It would be rash to expect any quick developments, but such disposals could eventually create leeway for a large acquisition which would not have to be financed by expensive equity.

The question is whether this would be an appropriate course. Williams has cleaned up its accounts. It has no reason to make a special virtue of this, though, and the absence of provisions on its new bolt-on acquisitions simply underlines how remote are the old buccannery days. If it really wants to restore its rating, it also needs to demonstrate that it can use the economic recovery to generate sufficient cash to reduce gearing. That will take time. At least patience is rewarded by a yield approaching 5 per cent.

Hillsdown Holdings

After running around like a headless chicken buying businesses in the 1980s, Hillsdown is now restoring some sanity to its sprawling empire. Its management is proving brutally effective in knocking the business into shape. Although trading profits remained static in the first half at \$18m, Hillsdown squeezed \$50m more cash from its operations. Over the past year, it has chopped \$400m of low-margin commodity sales.

Much remains to be done while complaints about Hillsdown's exposure to cyclical businesses remain as valid as ever. With refreshing candour, Hillsdown admits it does not have much

choice about its current strategy of simply improving what it has got. Gearing of 42 per cent precludes any big moves into higher value-added areas. It would be hard to get a rights issue away, while the poor performance of Premier Brands hardly inspires confidence that Hillsdown is the best of brand managers anyway.

For the moment, investors will have to content themselves with the secure dividend: Hillsdown remains the fifth highest yielding stock in the FT-SE 350 despite its shares rising from 74p to 172p since last September. At some point, attention must switch to earnings prospects. A multiple currently matching that of Unilever either suggests the market is being wildly optimistic about Hillsdown's recovery or - more probably - that it is unduly glum about the Anglo-Dutch giant.

Fisons

Having repaired relations with the US authorities and restored the balance sheet to health, Fisons' new management must somehow deliver earnings growth. Much depends on the recent US launch of Tilade, its new asthma drug. A joint marketing agreement with Rhône-Poulenc Rorer might avoid the kind of disappointing launches seen elsewhere. But with Intal, the old faithful, losing patent protection next year and a pipeline short on promise, nothing less than an unqualified success will do.

In the meantime, scientific equipment, which accounts for half of sales, is suffering. The low-margin business supplying laboratory equipment continues to plod along. But manufacturing high-value scientific instruments has turned out to be highly cyclical. Despite the competitive gains from devaluation, that division is trading at a loss. Margins will remain depressed until customers feel confident about ordering expensive capital equipment. Buying VG Instruments on a multiple of around 20 times near-peak earnings in 1989 - funded with a rights issue at 211p - must be counted a serious error.

Robbed of rising cash flow from instruments, and facing heavy capital expenditure commitments, Fisons is being squeezed. Disposals have helped relieve the pressure on cash flow. But with only the UK and European horticultural businesses still to go - and no sign of a buyer - cash from that direction can not be relied upon. All the more reason to hope that the US launch of Tilade is a success.

FT WORLDWEATHER

Europe today

A storm centre south-west of the UK will influence much of western Europe. Rain will move north and east across the UK, the Low Countries and northern Germany. Brisk easterly breezes will strengthen to gale force over the northern North Sea. In the wake of the rain, winds from the south will bring temperatures above 20C. Weaker lows in the extreme north of Europe will produce cloud and rain in Scandinavia and Russia. Central and southern Europe will remain warm and humid. Sunny intervals will occur, but a few scattered showers or thunderstorms are also expected. Most parts of south-east Europe will continue sunny and warm.

Five-day forecast

A low pressure area will weaken as it moves slowly north reaching the vicinity of Scotland on Saturday. Until then, brisk southerly breezes will draw warmer but also unstable air towards the north accompanied by occasional showers and thunderstorms. Sunny intervals will bring temperatures up to 18-23C in the north and 27-32C in Mediterranean countries. A new series of low pressure areas will bring more rain into western Europe over the weekend.

TODAY'S TEMPERATURES

| Location | Temp | Location | Temp | Location | Temp | Location | Temp |
|--------------|------|-----------|------|---------------|------|-----------|------|
| Moscow | 19 | Frankfurt | 19 | Madrid | 23 | Paris | 21 |
| Belgrade | 18 | Geneva | 18 | Manchester | 22 | Rome | 20 |
| Berlin | 18 | Chicago | 23 | London | 22 | Seoul | 28 |
| Bombay | 29 | Cologne | 23 | Osaka | 28 | Singapore | 28 |
| Buenos Aires | 29 | Dakar | 29 | San Francisco | 15 | Tokyo | 27 |
| Buenos Aires | 29 | Hankow | 29 | Washington | 15 | Yokohama | 27 |
| Buenos Aires | 29 | Harbin | 35 | Wellington | 15 | | |
| Buenos Aires | 29 | Hong Kong | 31 | | | | |
| Buenos Aires | 29 | Kobe | 29 | | | | |
| Buenos Aires | 29 | Manila | 29 | | | | |
| Buenos Aires | 29 | Moscow | 24 | | | | |
| Buenos Aires | 29 | Mumbai | 29 | | | | |
| Buenos Aires | 29 | Nairobi | 24 | | | | |
| Buenos Aires | 29 | Rangoon | 29 | | | | |
| Buenos Aires | 29 | Sao Paulo | 24 | | | | |
| Buenos Aires | 29 | Shanghai | 29 | | | | |
| Buenos Aires | 29 | Singapore | 29 | | | | |
| Buenos Aires | 29 | Taipei | 29 | | | | |
| Buenos Aires | 29 | Tokyo | 29 | | | | |
| Buenos Aires | 29 | Yokohama | 29 | | | | |
| Buenos Aires | 29 | | | | | | |

Forecast by Meteorological Office of the Netherlands

| Location | Temp | Location | Temp | Location | Temp | Location | Temp |
|--------------|------|-----------|------|---------------|------|-----------|------|
| Amsterdam | 18 | Frankfurt | 18 | London | 18 | Paris | 18 |
| Berlin | 18 | Geneva | 18 | Manchester | 18 | Rome | 18 |
| Bombay | 29 | Chicago | 23 | Osaka | 28 | Singapore | 28 |
| Buenos Aires | 29 | Cologne | 23 | San Francisco | 15 | Tokyo | 27 |
| Buenos Aires | 29 | Dakar | 29 | Washington | 15 | Yokohama | 27 |
| Buenos Aires | 29 | Hankow | 29 | Wellington | 15 | | |
| Buenos Aires | 29 | Harbin | 35 | | | | |
| Buenos Aires | 29 | Hong Kong | 31 | | | | |
| Buenos Aires | 29 | Kobe | 29 | | | | |
| Buenos Aires | 29 | Manila | 29 | | | | |
| Buenos Aires | 29 | Moscow | 24 | | | | |
| Buenos Aires | 29 | Mumbai | 29 | | | | |
| Buenos Aires | 29 | Nairobi | 24 | | | | |
| Buenos Aires | 29 | Rangoon | 29 | | | | |
| Buenos Aires | 29 | Sao Paulo | 24 | | | | |
| Buenos Aires | 29 | Shanghai | 29 | | | | |
| Buenos Aires | 29 | Singapore | 29 | | | | |
| Buenos Aires | 29 | Taipei | 29 | | | | |
| Buenos Aires | 29 | Tokyo | 29 | | | | |
| Buenos Aires | 29 | Yokohama | 29 | | | | |

Frankfurt. Your hub in the heart of Europe.

Lufthansa
German Airlines

Without us, they couldn't send in the Marines.

The proven ability of air cushioned landing craft (LCAC) to ferry up to 60 tons of men and equipment from ship to shore under combat conditions has added a valuable new weapon to the US Navy's armoury. And the propellers that power the LCAC into action are manufactured by Dowty.

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MOBILE COMMUNICATIONS

Wednesday September 8 1993

The mobile communications industry is racing ahead so fast, the milestones are out of sight almost as soon as they are passed. Few doubt, however, that last month's \$12bn-plus takeover of McCaw Communications by the US giant American Telephone & Telegraph marks a decisive turning point, giving a huge impetus to the development of cellular telecommunications and their integration with fixed-wire networks.

AT&T paid dearly for McCaw, too dearly in the view of many commentators, given that McCaw is still loss-making and loaded with nearly \$5bn of debt. There are also regulatory hurdles to be overcome: the regional Bell operators claim that the takeover breaches the 1994 ruling which forced AT&T out of the "local loop", and will allow the long-distance and international operator to re-enter it by the cellular back door.

If their arguments before the courts and the Federal Communications Commission come to anything, AT&T will have some hard explaining to do to its shareholders. The balance of opinion, though, is that Mr Robert Allen, AT&T's chairman, will carry the day with his protestation that he is "not interested in re-entering the local telephone business". In any case, the 1994 settlement is under increasing assault: the ban on the "Baby Bells" offering cable television in their telephone service areas may not survive for much longer, and if that goes, the rest of the artificial regulatory edifice will be in danger of collapse.

Assuming, then, that AT&T is able to keep and exploit its spoils, where will it go?

Dismiss crude ideas that AT&T - or mobile operators almost anywhere else in the world - will engage in head-on competition with local fixed-wire networks. The economics make nonsense of that idea for the foreseeable future, even allowing for a decline in cellular charges with rising volumes and rapidly falling costs for infrastructure and terminals. Local fixed-wire tariffs are set to increase in real terms, as further rebalancing of local against long-distance and international tariffs takes place, but the differential will remain stark.

Wireless communications will complement, not replace, the fixed wire: integration, not supersession,



Seamless networks on way

Andrew Adonis looks at the latest milestone in the industry and foresees the emergence of an integrated marketplace

is the watchword. For users, the next few years will offer improved quality, seamless services covering fixed and mobile networks, and a range of new services for carrying voice and data, albeit shrouded in acronyms like DECT, ISDN, GSM, MCN, PCN and CT2 (and they are just the raw essentials).

There is also the prospect of lower tariffs, but not as low or as soon as all that. Over the past year low-user packages have reached most markets, but what they offer by way of reduced subscription and access charges they take away by making the phones prohibitively expensive for the owner to make outgoing calls. Indeed, the new generation of digital cordless phones is pushing cellular prices sharply upwards. In the UK, the first digital cellular

phones will retail for about between £250 and £400, several times the cost of a (far lighter) handset for the existing analogue networks.

For operators, the challenge is threefold. First, to exploit the potential of their existing businesses more effectively than hitherto, in particular by tapping the consumer market. Second, to build new markets by acquiring domestic and overseas licences for new services, an ever-smaller proportion of which are being awarded on the nod to established state operators. Even in countries fiercely committed to defending their public telephone operator monopolies for fixed-wire services, overseas operators are being encouraged to provide mobile services, typically by licensing a second competitor to the PTO for new services.

The third challenge is integration: to enhance the complementarity of wire-less and wire-line services by improving the interface between them in terms of technology, marketing and the provision of value-added services such as personal numbering. It is in this third field that AT&T is in a position to add most value, marketing "one-stop" packages and developing new interconnections with its long-distance network.

"The seamless North American cellular network is becoming a reality," says Mr Robert Morris, telecommunications analyst at Goldman Sachs. The introduction of the IS-41 switching interface standard means that markets across the US are being inter-connected for automatic call delivery. The roll-out

of digital technology is also progressing, despite continuing debate between two different technology standards.

Analysys, the Cambridge-based consultancy in the UK, argues in a recent report that the next three years will see operators jostling for position "in the emerging integrated marketplace". In the US, AT&T may lead the way. By contrast, in Europe Analysts believe mobile network operators and new competitors to existing PTOs are likely to do so, because of the regulatory difficulties for Europe's PTOs in establishing themselves in the mobile market and the technological difficulties of providing next-generation services without a mobile network.

If successful in the US, AT&T will boost a market that is already

experiencing phenomenal growth. Since 1984, the US cellular market has grown from about 1m to 12m subscribers. It expanded by a further 637,000 in the first quarter of this year alone, compared with 481,700 in the same period in 1992. Economic and Management Consultants International, a Washington consultancy, projects 17.7m subscribers by the end of 1995 and 26m by the end of 1996.

The pattern is similar in western Europe, although outside Scandinavia it is rising from a comparatively lower base. According to the FT's Mobile Communications newsletter, the subscriber base has risen by a third in the last year, with 7m at July 1. CTT Research, the London consultancy, projects nearly 12m subscribers by the end of 1996 and 19.1m by the year 2000.

The Asia-Pacific region is also undergoing a mobile boom - the number of cellular subscribers in the region's 12 largest markets in the region grew by 50 per cent from 2.7m to 4m last year, and this year's growth rate is again expected to outstrip that of Europe and the US. The mobile take-off is not just in cellular: paging and telepoint technologies are advancing at an extraordinary rate in the region, spurred on by the almost insatiable demand from city-based private consumers for affordable personal communications. Hong Kong alone has more than 700,000 paging subscribers, matching the tally for the whole of the UK.

Eastern Europe is the region for which it is most difficult to project growth. The recent auctioning by the Hungarian government of licences to build a new digital cellular network led to a battle royal between consortia led by the German and Nordic PTOs respectively. National cellular and paging services are also set to come on stream in Bulgaria, Poland and the Czech republic.

Beyond that, however, the funding of new mobile ventures for any but the wealthiest of western businesses in large cities is problematic. Deutsche Telekom is anxious to establish itself, but is not awash with cash given constraints at home: some private operators, notably US West, have made strides east, but as many again are distinctly wary of following. Says Mr Gerry Whent, chief executive of Vodafone, the UK private mobile operator which bid unsuccessfully for the Hungarian

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Editorial production
Gabriel Bauman



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MOBILE COMMUNICATIONS II

Andrew Adonis looks at the likely impact of the new GSM networks

For once, Europe is ahead of the US game

GSM stands for Groupe Speciale Mobile, a pan-European digital telecommunications standard for a new generation of cellular services across the continent compatible with each other. The first GSM networks were launched last July in Germany, France and Denmark. Vodafone launched its UK GSM service, called "EuroDigital", on September 1. GSM services have recently - or will soon - come on stream in the other leading west European states, and eastern Europe is following behind. Dataquest, the consultancy company, is forecasting 1m GSM subscribers in western Europe by the end of this year, growing to 13m by the end of 1997.

GSM networks are not going to replace existing analogue services overnight. GSM requires new infrastructure and different, digital handsets. That leaves analogue operators, including those constructing GSM networks, with investments to recoup and capacity to fill. It also leaves their subscribers with terminals useless for digital networks. With GSM handsets retailing for around £400 in the UK - after a subsidy of more than £100 from the operators - analogue handsets selling for a quarter of the price will retain a strong attraction.

Dataquest projects that shipments of GSM telephones will overtake analogue shipments by next year, and that by the end of 1997 analogue will have barely half as many subscribers as GSM. "The speed of the transition will be variable," says Mr Dean Eyles, Dataquest's mobile analyst. "It will be fastest in countries like Germany, where

analogue penetration was lower and competition between GSM operators is already strong." With digital barely off the ground in the UK, Germany already has nearly 500,000 GSM subscribers, and for most German users GSM is more accessible than analogue.

The old and new are therefore set to co-exist until at least the turn of the century. Indeed, some operators are deliberately delaying their GSM offerings so as to maximise the potential of existing networks. In the UK, Cellnet is still looking to double its analogue subscriber base and will not be launching its GSM service until next year. Its strategy over the coming months is to combat Mercury One-2-One and Vodafone's two digital services with special analogue deals, playing hard on its lower all-in entry fee.

It is not just a question of existing capacity. Mr Stafford Taylor, Cellnet's managing director, points to rapidly falling GSM handset and infrastructure prices, and more versatile base stations appearing by the month.

Some operators are deliberately delaying to maximise the potential of existing networks

Motorola, for instance, has just launched a base station ("ExCell") about twice the size of a street cabinet, requiring none of the separate buildings and protective fencing of its predecessors. Mr Taylor is gambling that delayed digital gratification will bring higher short and medium-term dividends.

| GSM operators in western Europe | | |
|---------------------------------|--------------------|---|
| Country | Number of licences | Operator(s) |
| Austria | 1 | PTO (with Pacific Telesat) |
| Belgium | 1 | (1) PTO (2) Danak |
| Denmark | 2 | Mobitel (GSM Great Nordic) |
| Finland | 2 | (1) PTO (2) Radiolinja |
| France | 2 | (1) PTO (2) Societe Francaise de Radio Telephonie (Compagnie Generale des Eaux) |
| Germany | 2 | (1) PTO (2) Mannesmann Mobilfunk |
| Greece | 2 | (1) Panafon (Vodafone) |
| Ireland | 1 | PTO |
| Italy | 2 | (1) PTO (2) STET |
| Netherlands | 2 | (1) PTO (2) Nelscom (Chirif) |
| Norway | 2 | (1) PTO (2) State operators (2) Telcel |
| Portugal | 1 | PTO |
| Spain | 3 | (1) PTO (2) NordicTel (Pacific Telesat) (3) Comvik |
| Sweden | 1 | PTO |
| Switzerland | 1 | (1) Consortium incl. Finnish Telecom and Ericsson |
| Turkey | 2 | (1) Consortium incl. Akcel, Siemens and Datacom |
| UK | 2 | (1) Cellnet (British Telecom) (2) Vodafone |

Nor will it be a straightforward one-way migration from analogue to GSM. Operators are piggy-backing "local" digital services, with lower access and call charges, on their 900MHz GSM networks. In the UK Vodafone's is called "MetroDigital" and will be launched on October 1.

Digital networks operating to the higher 1800MHz frequency are also being built. The launch of UK Mercury One-2-One's PCN service is imminent, and Hutchison is constructing another. In Germany the E-Plus consortium - which includes Thyssen, Veba, BellSouth and Vodafone - is also building a DCS 1800 network. In some countries far cheaper telepoint services, offering one-way communication, are advancing too. Hutchison's "Rabbit" service has so far had only

limited success in the UK, but in Benelux and France similar services have fared better - though partly because of the inadequacy of the cellular network, particularly in Paris. GSM is thus only one of a number of new or revamped mobile services entering the market. It nonetheless has a critical role to play - not only because of its technological features, but because of the mode of its introduction, which is helping to reorganise not just the cellular market, but the configuration of the telecommunications services industry across Europe.

Moreover, for once Europe is ahead of the American game in mobile. The US is still engaged in a dispute between operators over two rival digital standards - time division multiple access (TDMA) and code-division multiple access (CDMA) - which is threatening to delay

the widespread introduction of digital systems.

GSM's principal technological assets are fourfold. Being digital, its capacity is far higher than that of analogue networks. It comes with a range of value-added features. Through "roaming" agreements with other GSM operators, it will in due course give mobility across much of Europe. And with more than 20 countries beyond Europe having now adopted the GSM standard, including Australia, New Zealand and Fiji, it offers the prospect of cellular mobility well beyond Europe.

Says Mr Robert Morris, telecommunications analyst at Goldman Sachs: "It looks as if we are going to end up with one standard for the US, and GSM for the rest of the world" - a fortuitous development for Europe's GSM users, who can expect to benefit from cheaper infrastructure and development costs in consequence. Most GSM operators now have roaming agreements with counterparts across Europe, allowing GSM subscribers to make calls in any country with a GSM network simply by

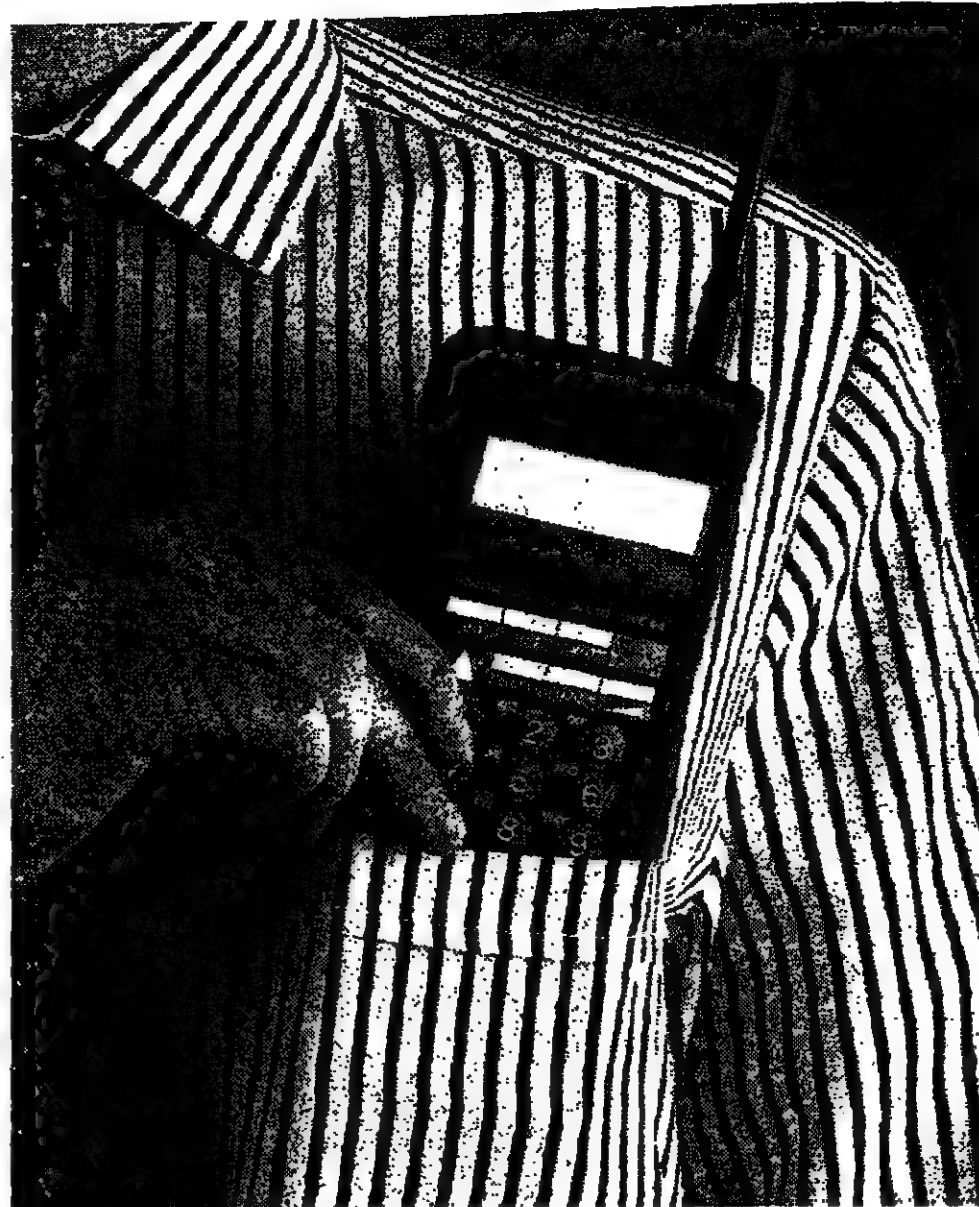
Europe's cellular phone users will have a choice of network and operator for the first time

inserting their personal smartcard into a digital handset. Of the wide range of value-added services available with GSM, probably the most widely appreciated will be the short message facility, allowing handsets fitted with liquid crystal screens to receive messages, like alphanumeric radiopagers. In the longer term the mobile data facility incorporated within the GSM standard will permit mobile terminals, such as portable computers and fax machines, to communicate through handsets at speeds comparable to today's fixed data lines.

However, arguably the most novel and far-reaching feature of GSM is that for the first time it is providing most of Europe's cellular phone users with a choice - of network and choice of operator.

In the UK and US, analogue networks were provided by rival operators. In most of Europe, however, the state-owned PTO provides the service, with no rival licensed and few immediate incentives for the PTO to maximise its subscriber base.

By contrast, GSM licences are generally being offered to



The Excel M2 Pocketphone fits in any City shirt

two competing operators (see table). Typically one of them is the PTO, but the cellular activities of the PTO are increasingly being moved into separate divisions and encouraged to compete aggressively. Belgacom, Belgium's state operator, has gone the furthest of all the monopolies, having off its GSM operation and inviting Pacific Telesat, one of the top five US cellular companies, to join it as a minority partner in the project.

The reasons for this change of policy are not hard to find, although rarely stated explicitly. Most of Europe's PTOs are anxious for privatisation and greater operational flexibility. Separating out their mobile divisions, and allowing them to bid for overseas licences and to work with private sector partners, is good preparation. As for governments, which award the GSM licences, licen-

sing rival GSM operators is a measured first step towards wider telecommunications liberalisation. Under a recent European Community agreement, full competition must be permitted in most of the fixed-wire voice market by 1998. It is also turning into a

Full competition is turning into a useful and lucrative source of government revenue.

useful, and increasingly lucrative, source of government revenue. The policy of giving licences away to companies in return for commitments to build within a pre-determined timescale, and in some cases also to keep tariffs within set bounds, is giving way in poorer countries to a straight auction.

Poland led the way two years ago, extracting about \$100m from France Telecom and Ameritech of the US for their cellular licence. Greece turned the auction into an art form last year, when it got \$164m each from two consortia for their GSM licences. Following the Greek model, the Hungarian government last month succeeded in pocketing nearly \$100m in return for its licence. According to the FT's Mobile Communications newsletter, the Greek auction netted \$16 per head of population; Poland \$2-3; the Hungarians nearer \$5.

That may be good news for southern and eastern Europe's hard-pressed taxpayers. But if it becomes the norm, then those heralding cellular as the means to meet the telecommunications needs of impoverished communities will have to find a new tune.

Seamless networks on way

Continued from previous page

licence: "It's all too difficult and bureaucratic. Quite frankly, eastern Europe is not in our portfolio; we don't think they are ready for capitalism yet."

Europe, like the US, is moving towards a seamless cellular system with the building of digital networks to the pan-European GSM standard. All the leading European Community states apart from Spain now have them in operation, although in some coverage is still patchy. In most countries two competitors have been licensed, a significant change in policy from the first generation of cellular analogue networks, which were mostly provided by the state telecommunications monopoly.

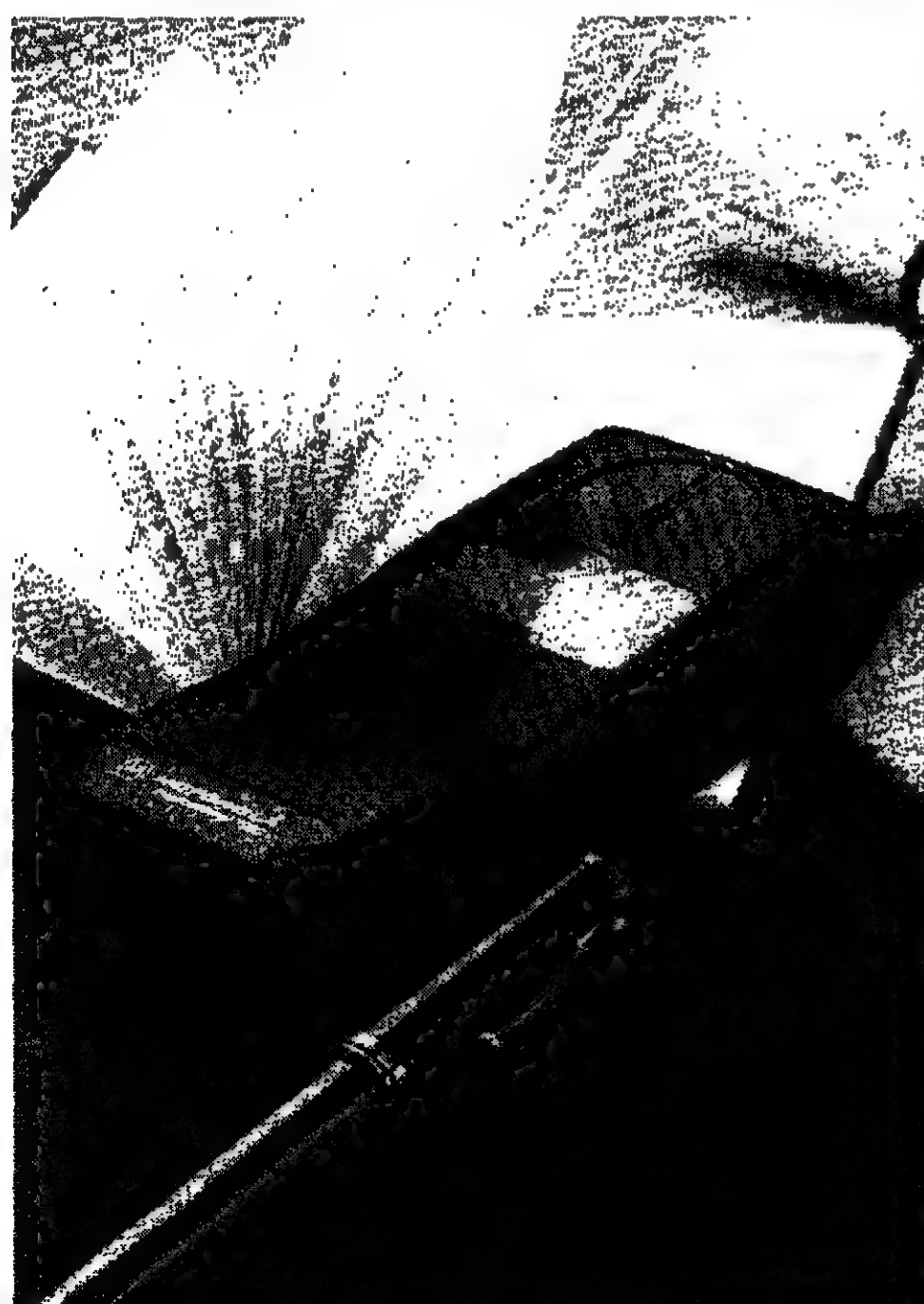
With two competing analogue networks, the UK was a notable exception to the European pattern from the outset. The former state monopoly operator, British Telecommunications, holds only a 60 per cent stake in Cellnet, the smaller and less profitable of the two. Vodafone is the market leader, and since the McCaw sale it is the world's largest dedicated cellular company. It is expanding fast into western Europe and Asia-Pacific, with a medium-term goal of securing overseas licences covering as large a population as in the UK, adjusting for income.

Moreover, the UK is set to become the first large European market with three serious cellular operators, with the launch of Mercury One-2-One, a digital PCN network operated by a joint venture of Mercury Communications and US West. Initially its coverage will be confined to the M25 area around London, but it plans to expand rapidly beyond.

One-2-One's fate will be an important test of the capacity of competition to bring down prices in the cellular industry. Without the prospect of greater competition, the margins currently achieved by Vodafone and Cellnet would be almost indefensible.

Cellnet's revised tariffs, published last week, offer substantial discounts to subscribers in the M25 area, a clear response to One-2-One. If the reductions continue, pressure for regulation will ease.

Mobile communications is the world of dreams, abundant material for which is contained in later articles. The ultimate dream, perhaps, is of a truly global handheld mobile telephone service. It is still not in prospect, but it has come a step closer with recent financial backing for Motorola's Iridium satellite telecommunications system - described as the world's biggest private sector space project.



Motorola has just launched the MicroTac International 7200, which it claims is the world's lightest GSM digital cellular telephone. Weighing just 215 grams, the MicroTac 7200 is 25 per cent lighter and about 20 per cent smaller than the MicroTac 5000 series GSM cellular telephones launched in March.

Of particular significance is the introduction of SMS (short message service) into Motorola's GSM range, which enables the user to send and receive short data messages.

Features include a four-line, 24 character super-twist display, 100 alphanumeric memory, continuous signal strength and battery level indicator and a call-in absence alert.

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Western Europe cellular telephone subscribers

| Country | Operator | System | Launch | Subscribers July 1, 1993 | Subscribers July 1, 1992 | Yearly growth (%) | Penetration July 1, 1993 |
|---------------|--------------------|----------|----------|--------------------------|--------------------------|-------------------|--------------------------|
| Andorra | PTT | NMT-450 | Jul 1990 | 700 | 240* | 191.67 | 14.00 |
| Austria | PTT | NMT-450 | Nov 1984 | 55,858 | 61,459 | -9.11 | 26.55 |
| Austria | PTT | TACS-900 | Jul 1990 | 141,158 | 81,449 | 73.31 | - |
| Belgium | Belgacom | NMT-450 | Apr 1987 | 62,998 | 55,814* | 12.87 | 8.40 |
| Cyprus | Cyprus Telecom | NMT-900 | Dec 1988 | 11,520 | 7,208 | 65.37 | 17.03 |
| Denmark | Tele Denmark Mobil | NMT-450 | Jan 1992 | 46,608 | 50,281 | -7.30 | 47.08 |
| Denmark | Tele Denmark Mobil | NMT-900 | Dec 1986 | 179,150 | 143,078 | 25.21 | - |
| Denmark | Tele Denmark Mobil | GSM | Jul 1992 | 8,000* | n/a | n/a | - |
| Denmark | Sonofon | GSM | Jul 1992 | 8,000* | n/a | n/a | - |
| Faroe Islands | PTT | NMT-450 | Jan 1989 | 1,984* | 1,489 | 7.06 | 36.84 |
| Faroe Islands | PTT | NMT-900 | Jun 1992 | 168* | 10 | 1,760.00 | - |
| Finland | Telecom Finland | NMT-450 | Mar 1982 | 167,739 | 157,483 | 6.51 | 82.56 |
| Finland | Telecom Finland | NMT-900 | Dec 1988 | 231,718 | 184,719 | 40.67 | - |
| Finland | Telecom Finland | GSM | Jul 1992 | 6,500* | n/a | n/a | - |
| Finland | Radiolinja | GSM | Jul 1992 | 6,000* | n/a | n/a | - |
| France | France Telecom | RC2000 | Nov 1985 | 328,000 | 316,000 | 3.80 | 8.42 |
| France | France Telecom | GSM | Jul 1992 | 16,000 | n/a | n/a | - |
| France | SFR | NMT-450 | Aug 1988 | 125,000 | 99,400 | 25.75 | - |
| France | SFR | GSM | Dec 1992 | 7,000 | n/a | n/a | - |
| Germany | Deutsche Telekom | C-450 | Sep 1985 | 806,512 | 677,936 | 18.97 | 15.80 |
| Germany | Deutsche Telekom | GSM | Jul 1992 | 190,000 | n/a | n/a | - |
| Germany | Mannesmann | GSM | Jun 1992 | 250,000* | n/a | n/a | - |
| Iceland | PTT | NMT-450 | Jul 1986 | 16,454 | 13,989 | 17.82 | 85.82 |
| Ireland | Eircom | TACS-900 | Dec 1992 | 47,471 | 37,000 | 28.30 | 18.56 |
| Italy | Stet | RTMS | Sep 1985 | 33,100 | 57,800 | -42.73 | 15.76 |
| Italy | Stet | TACS-900 | Apr 1990 | 874,200 | 633,000 | 38.10 | - |
| Italy | Stet | GSM | Oct 1992 | 1,500 | n/a | n/a | - |
| Luxembourg | PTT | NMT-450 | Jun 1985 | 873 | 927 | -5.83 | 2.30 |
| Malta | Telecel | ETACS | Jul 1990 | 5,118* | 3,557* | 43.89 | 14.52 |
| Netherlands | PTT Telecom | NMT-450 | Jan 1985 | 28,419 | 26,199 | 8.04 | 12.79 |
| Netherlands | PTT Telecom | NMT-900 | Jan 1989 | 184,728 | 116,041 | 41.95 | - |
| Norway | Tele-Mobil | NMT-450 | Nov 1981 | 158,872 | 149,860 | 6.01 | 75.64 |
| Norway | Tele-Mobil | NMT-900 | Dec 1988 | 160,476 | 102,392 | 56.73 | - |
| Norway | Tele-Mobil | GSM | May 1993 | 1,354* | n/a | n/a | - |
| Portugal | TMN | C-450 | Jan 1989 | 28,105 | 18,535 | 43.87 | 8.14 |
| Portugal | TMN | GSM | Dec 1992 | 16,500 | n/a | n/a | - |
| Portugal | Telecel | GSM | Oct 1992 | 20,000 | n/a | n/a | - |
| Spain | Telefonica | NMT-450 | Jun 1982 | 57,559* | 67,038 | -14.14 | 5.71 |
| Spain | Telefonica | TACS-900 | Apr 1990 | 164,844* | 81,165 | 103.10 | - |
| Sweden | Tele | NMT-450 | Oct 1981 | 256,920 | 247,495 | 3.81 | 56.24 |
| Sweden | Tele | NMT-900 | Dec 1986 | 451,788 | 368,885 | 22.47 | - |
| Sweden | Tele | GSM | Nov 1992 | 3,000* | n/a | n/a | - |
| Sweden | Comvik | NMT-450 | Aug 1981 | 21,000 | 21,000 | 0.00 | - |
| Sweden | Comvik | GSM | Sep 1992 | 4,000* | n/a | n/a | - |
| Sweden | NordicTel | GSM | Sep 1992 | 1,500 | n/a | n/a | - |
| Switzerland | PTT Telecom | NMT-450 | Sep 1987 | 240,852 | 198,404 | 21.39 | 38.19 |
| Switzerland | PTT Telecom | GSM | Mar 1993 | 2,000* | n/a | n/a | - |
| UK | Cellnet | TACS-900 | Jan 1985 | 710,300 | 569,800* | 24.86 | 27.98 |
| UK | Vodafone | TACS-900 | Jan 1985 | 856,141 | 731,800 | 22.52 | - |
| UK | Vodafone | GSM | Jul 1992 | 1,450* | n/a | n/a | - |
| TOTAL | | | | 7,014,857 | 5,282,453 | 33.30 | 19.05 |

* Mobile Communications collection. † Systems operated by private companies. All other systems are operated by national telecommunications operators. ‡ Figure for each country per 1,000 of population, as at July 1 1993.

§ Sales have stopped due to lack of spectrum.

Source: FT Mobile Communications

PERSONAL COMMUNICATIONS NETWORKS

Drive for the mass consumer market

TELECOMMUNICATIONS network operators throughout the world will be watching developments in the UK closely this autumn as the first of a new generation of low-cost digital mobile telephone services are launched.

The advent of Personal Communications Network services marks a watershed in the development of high-capacity sophisticated mobile telecommunications using pocket-sized handsets and targeted at domestic customers and small business users.

Their arrival promises customers an expanding choice of feature-rich services and significantly greater competition between cellular network operators.

PCNs - touted by their advocates as the future shape of mobile telephony - are a high capacity derivative of the pan-European GSM digital cellular standard employing smaller-sized cells and higher frequencies. Unlike the high powered GSM which was principally designed for use in cars, PCN has been designed from the outset to work with small, lightweight, low-power handsets carried in people's pockets.

The European Telecommunications Standards Institute produced the DCS-1800 PCN specification in 1991. Because PCNs operate at 1800 MHz, double the frequency of GSM, they have a much higher capacity which enables PCN operators to set call charges which are much more directly competitive with the hard-wired networks run by the public telephone operators.

However, the drawback is that using high frequency signals with a relatively short range means that double the number of base stations are required and the cost of building a network to reach 90 per cent of the population is around £1bn.

In the UK, where the PCN concept was born, the government awarded PCN licences to three international consortia at the end of 1989. However, since

then forecasts of the number of cellular subscribers by the end of the century have been scaled back, forcing many of the PCN licence participants to reassess their involvement.

As a result, there has been a wave of stake sales and mergers and one of the three original PCN licences has been handed back. The two remaining licences are held by Mercury One-2-One, formally called Mercury Personal Communications, which is a joint venture between Cable & Wireless and US West, and Hutchison Microtel, part of the Hong Kong-based Hutchison Whampoa group.

Hutchison Microtel has been looking for a partner to share the costs of building its PCN service which is due to be launched in April next year. So far, Hutchison is believed to have spent more than £300m developing the service, to be targeted initially at the business and small business sector.

The cost of reaching 90 per cent of the population is around £1bn

Mercury One-2-One was due to be launched in the summer but a number of technical problems emerged during a "Beta" field test of the system so the launch date has been pushed back. Initially the service will be limited to the London area bounded by the M25, but it is due to expand throughout the south-east to reach a quarter of the UK population by the middle of next year.

The big challenge for the new digital network operators will be whether they can broaden the customer base for mobile telephony to reach the mass consumer market. Existing analogue cellular telephone services in the UK and elsewhere, though highly successful, have mostly appealed to business customers because of their relatively high charges.

Recently both Vodafone and Cellnet, in the UK, have intro-

duced new tariff structures designed to appeal more to low call volume customers. However, these still fall short of offering consumers a realistic alternative to basic "fixed-wire" telephone services for only a modest premium.

Mr Richard Goswell, managing director of Mercury One-2-One, says its research shows that "if you get the prices right the consumer market is definitely interested". Nevertheless, he acknowledges that until handset prices fall from their initial level of £250 to £300, the service is unlikely to reach a mass consumer audience. "There will be a lot of sales to small businesses and the consumer market will develop over time," he predicts.

But by the turn of the century he believes PCN handsets will be sold in plastic "blister packs" by high street electrical stores and will provide a real, feature-rich alternative to the domestic hard wired telephone. In the interim he expects PCN handsets to start appearing as a second telephone, providing the additional advantage of mobility.

Mercury has set two standard tariffs, one called BusinessCall targeted at higher volume business customers and the other called PersonalCall for small businesses and low call volume individual customers. Both tariffs offer savings of between 30 and 40 per cent over the equivalent tariffs on Vodafone and Cellnet's existing national analogue tariffs.

In addition to more aggressive pricing, Mercury is betting that it will attract customers to its PCN service by including some sophisticated features, such as an integrated "voice mail" answerphone service, call barring, call divert and call waiting facilities.

Like GSM handsets, PCN telephones are operated using a smartcard which contains customer billing and other information. This means handsets can be shared and customers can make calls from any handset and be billed at home. Links with GSM networks will allow the smartcard to be used



Thanks to BT's new M-Sat mobile satellite telephone service, business people are now able to keep in constant touch with their colleagues even in the remotest part of the world. BT's service covers north and south America, Europe, the Middle East and Africa, and the system will soon be extended worldwide. Lightweight and portable, the satellite phone, which is easy to use, comes packaged in a briefcase with the antenna integrated into the lid. According to BT, M-Sat is ideal for rescue services, the exploration industry and even for journalists, since it can function whenever travellers have to communicate from remote areas.

in any other country which has GSM or PCN.

However Mr Goswell emphasises: "There is nothing magical about PCN." It is an approach to marketing rather than the technology which makes it different, he says.

One of the prime motivations of the UK government in licensing PCN operators was to promote competition. Vodafone and Cellnet have both cut tariffs inside the M25 to counter the impact of Mercury One-2-One. Vodafone will also be launching its own version of a digital personal communications service called MetroDigital early next month.

MetroDigital, a microcellular regional cellular service previously called MGN, is based on Vodafone's existing EuroDigital GSM network and will provide a low-cost urban-based service, initially in south-east England.

Like PCNs, the service is aimed at consumers and small businesses. But unlike PCNs, it will operate at the same 900MHz frequency as GSM and will use the same handsets as the GSM network which are expected to cost around £400 initially.

MetroDigital's pricing struc-

The "not invented here" syndrome is blamed for the lack of progress in France

ture emphasises the "local" nature of the service. Local calls will cost 20p and national calls 25p a minute, but MetroDigital subscribers who make calls from rural areas via the GSM network will have to pay a punitive rate of 65p a minute. All calls off-peak will cost just 10p a minute.

By the end of next year Vodafone plans to cover all towns with a population of 50,000 or more and in the interim MetroDigital customers will be able to receive calls anywhere in the UK covered by Vodafone's GSM service.

Additional competition, at least in the business and corporate markets, could come from low cost regional varieties of GSM itself. Cellnet plans to introduce what it calls Local System for Mobile communications (LSM) regional services in January next year, ahead of the launch of its national GSM network. The LSM service will be available in an extended London region, as well as Leeds, Birmingham and Manchester.

In Europe, only Germany has followed Britain's lead and licensed a national PCN operator. The E-Plus consortium plans to launch its PCN service

in Berlin and Leipzig early next year. However, PCNs are also being studied in Spain, Italy throughout Scandinavia and in Switzerland. But PCN has stalled in France - blamed by some on the "not invented here" syndrome. Outside Europe, Thailand has licensed a PCN and Australia is in the middle of consultations.

However in the world's largest mobile telephony market, the US, where PCN services are known as Personal Communications Services, their introduction is still dogged by debate and the lack of any agreed standards. The Federal Communications Commission has issued over 150 licences for experimental PCS systems - often using different and incompatible technologies.

The complicated regulatory process in the US and a wrangle over radio spectrum

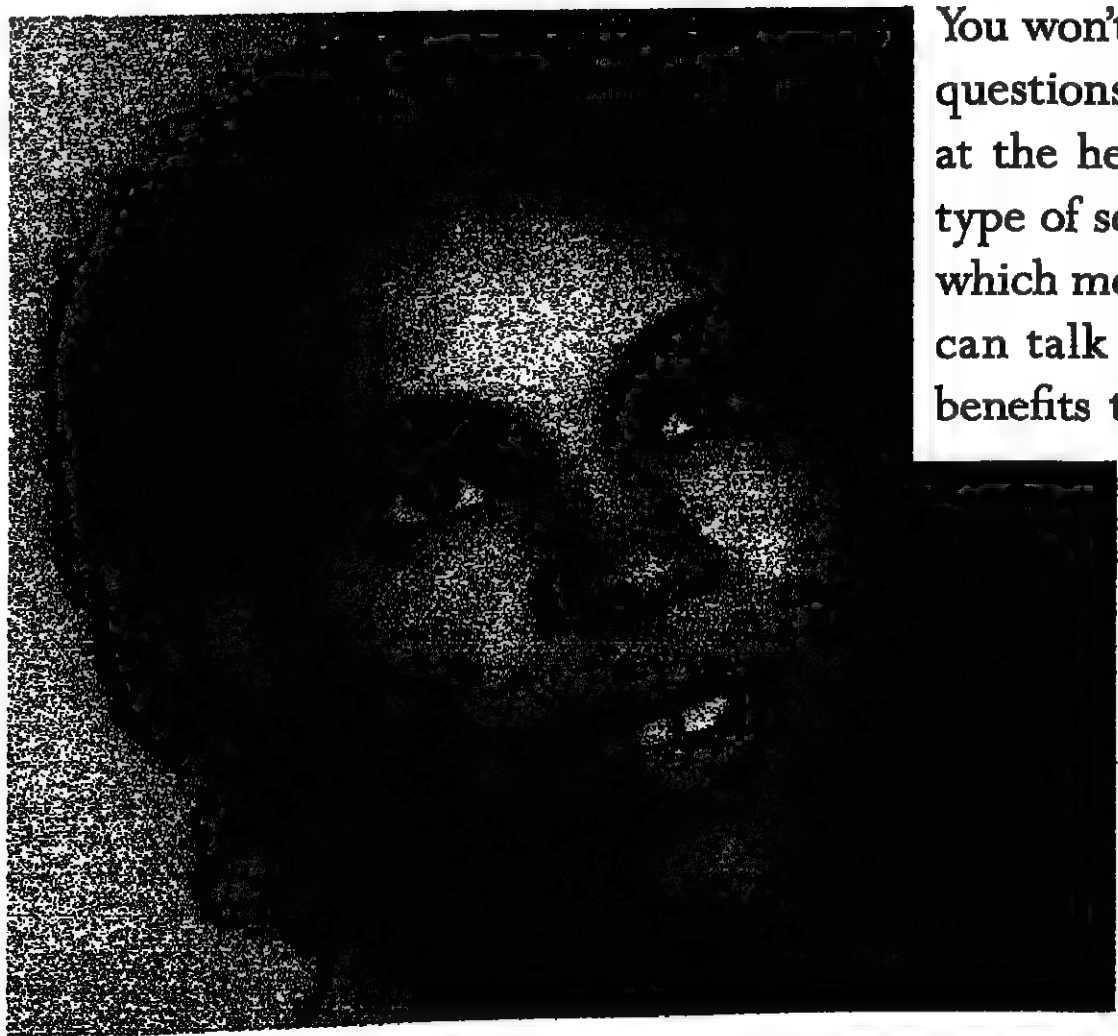
threaten to delay the introduction of commercial PCSs until the second half of the decade - a delay which analysts say could cost the US economy billions of dollars and would leave the US trailing Europe and the UK in particular.

Over the next few months British consumers will have the first opportunity to pass judgment on the PCN concept and whether it does indeed point the way towards mass mobile telecommunications.

Mercury One-2-One's Mr Goswell says: "I believe there is the opportunity in the UK to turn this market into something much larger than it has been." He argues that consumers are willing to pay a premium for mobility or "extended cordlessness" but not as much as has been demanded to date.

Paul Taylor

This is how Mercury sees the future of Mobile phones.



You won't have seen mobile phone technology this advanced before. It can answer questions, give advice, sort out problems and even say goodbye. We've put people at the heart of the Mercury *one2one* digital mobile phone system because of the type of service we want to offer. We're the first 'one stop' mobile phone company, which means whenever you need to talk to someone about the *one2one* service, you can talk directly to us at Mercury *one2one*. And we back this service with real benefits tailored to your individual needs. For example, the *one2one* system has two tariffs: PersonalCall and BusinessCall. PersonalCall finally gives ordinary people a mobile phone tariff that can be used everyday. BusinessCall means businessmen can stop thinking of the mobile phone as a necessary evil, as our peak rate is an affordable 16p a minute. All our service charges exclude VAT. Mercury *one2one* phones range from £249.99 to £299.99 including VAT. The service already covers London and substantial parts of the SouthEast, and is growing quickly to other parts of the country. And in the service area, you can call, and be called from, anywhere in the world. So if you like the look of the future of mobile phones, please ring the number in the box. Thank you for reading this Mercury *one2one* advertisement.

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MOBILE COMMUNICATIONS IV

Paul Taylor considers the prospects for a market that has so far failed to live up to expectations

Time may resolve data enigma

WHILE THE growth in mobile voice telephony has at times been spectacular, the market for mobile data remains something of an enigma. Everyone agrees it will be huge one day, but so far it has stubbornly refused to live up to early expectations.

As a result, most mobile data operators have been scaling back their subscriber projections, and in some cases their investments.

The latest casualty in the UK has been Hutchison Mobile Data which recently ceased "actively marketing" its fledgling dedicated data service and now plans to offer mobile data services on its Microtel digital personal communications network, which is expected to begin operations next April.

One possible explanation for the shortfall between expectations and reality may be that most services are still in their infancy. Another reason may be that customers are confused by the bewildering array of delivery systems and equipment.

Mobile data ranges from one-way pager traffic and short alert messages to more complex two-way data exchange and electronic mail. Excluding pager traffic, mobile data services are offered in the UK by Vodafone and Cellnet, the two cellular operators, surviving dedicated mobile data network operators such as Ram Mobile Data, Cognito and Vodafone's Paknet, specialist network operators such as Securicor Datatrak, and over private and public access mobile radio networks including National Band Three - all using incompatible standards and equipment.

Unlike the cellular telephone network operators, who have attracted more than 7m subscribers for their voice services in western Europe alone, the demand for data services has

been disappointing.

But despite being characterised as the Cinderella of mobile services, data transmission has several key advantages over voice telephony. In particular, data transmissions take up much less air time than voice communications. For example, a 30-word exchange between a dispatcher and a vehicle driver takes more than 21 seconds when spoken but just 13 seconds when sent at the very slow data exchange rate of 1,200 bps (bits per second).

Data is generally cheaper, quicker and more accurate than voice and while pagers and cellular phones play an important role in communicating short messages, they have limitations when it comes to transmitting complex or large volumes of information.

Typical applications for mobile data involve transfer-

One advantage is that data transmissions take up much less air time than voice communications

ring information to and from portable computers or retrieving information from mobile data terminals such as meter readers or updating information on the office computer systems.

Mobile data can provide a corporate salesforce with up-to-date customer information or keep track of emergency services, like truck fleets or railway wagons. Other potential users in the future

include the owners of a new generation of hand-held devices called "personal digital assistants" such as Apple's recently unveiled Newton.

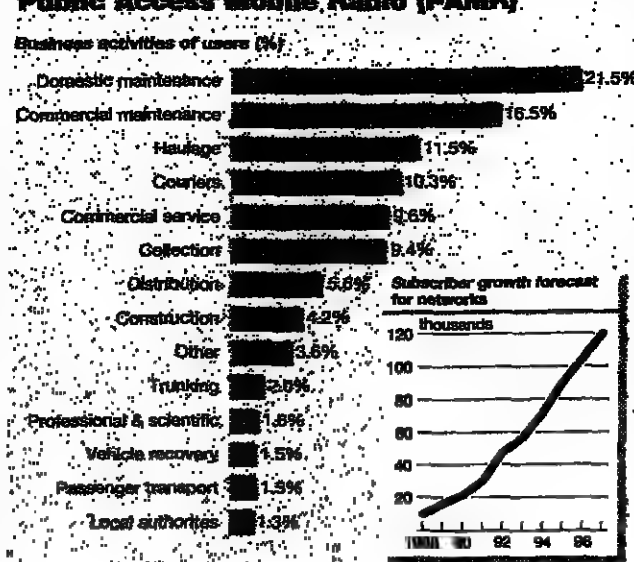
The case for digital or dedicated data transmission services is, on the face of it, a strong one. Generally, transmitting data over a non-dedicated service means sacrificing transmission quality, coverage or compromising in other areas. Transmitting data reliably over an analogue cellular system is considerably more difficult than over the public switched telephone network.

Nevertheless, research shows that many customers require a combination of voice and data communications. One solution is to build the specialist electronics into dedicated equipment or use a special cellular mode.

For example, Vodafone's Mobile Data Service uses a special cellular data link control mode to enable customers to transmit and receive error-free data over its cellular network which also provides automatic standards conversion.

Another option is to use a public access mobile radio service such as National Band Three in the UK, which is now owned by Geotek Industries of the US and has 35,000 subscribers according to Mr Andrew Robb, its managing director. Using a simple mobile radio data - both status data and so-called freeform data - is currently free on National Band Three and therefore provides a flexible and very cost-effective option for users wishing to mix voice and data.

Public Access Mobile Radio (PAMR)



"We probably have more data subscribers than Vodafone," says Mr Robb.

Mr Callum Mackie, who runs Protocol Ventures, an independent specialist in trunked mobile radio networks, argues that PAMR offers the best available combination of voice and data. Protocol can provide a complete package of terminals, software and network services enabling a fleet controller to send and receive voice and data transactions over the airwaves using a PC running a Windows-based fleet management and communications programme.

For those disinclined to use modems, another alternative is to wait for digital cellular tele-

phones based on the pan-European GSM or PCN standards. Vodafone has already demonstrated a feature called the short message service centre which enables messages of up to 160 characters to be sent to a GSM handset and displayed on its LCD screen.

However, the GSM specification also includes a facility which will eventually allow any terminal - for example, a portable facsimile machine or a notebook computer - to be plugged directly into the handset.

This could bring the GSM phone into more direct competition with the dedicated packet-switched mobile data networks which were licensed in

the UK in October 1991. Five 25-year licences were awarded to Cognito, DMC, Hutchison Mobile Data, Motorola and Ram Mobile Data.

But of these original licenceholders DMC and Motorola, which has invested heavily in the Ardis data service in the US, a joint venture with IBM, did not take up their licences. Paknet, now owned by Vodafone, was subsequently awarded a mobile licence in addition to its existing fixed data licence.

Cognito was closed after the sale of its parent, Dowry Group, last year, but was relaunched last autumn following its acquisition by Sonair, a Swiss investment company. Cognito's service provides customers with a mobile two-way text messaging system using a hand-held communicator called a Messenger which has a small screen and keyboard and operates via the group's nationwide data network.

Hutchison based its nationwide data network on Motorola's ED-LAP technology, which has proved less successful than Ericsson's rival Mobitex system. It has recently stopped promoting the network, which had no commercial subscribers.

However, Ram Mobile Data, a joint venture involving US-based Ram Broadcasting and BellSouth, France Telecom, Swedish Telecom and Bouygues, is using the Mobitex system which is beginning to emerge as a de facto standard in Europe in the absence of an official standard from the European Telecommunications

Standards Institute, which is not now expected before 1996 at the earliest. So far, Ericsson has won contracts in connection with seven of the 10 European mobile data licences awarded.

Ram has also taken a lead in developing applications software for the mobile data market - seen by many as the key to future growth. Mr John Jarvis, Ram's chief executive in the UK, says the group is encouraging the development of new vertical and horizontal applications, and the migration of existing applications running on private data networks.

Already, more than 100 application projects are in trials with Ram. Among the users of Ram network in the UK are the Next retail chain which uses the service to speed up credit card transactions, reduce fraud and improve customer service.

Most analysts still expect dramatic growth in the mobile data market over the next five years

and DSL, a national maintenance organisation which uses the data network to provide field engineers with far more accurate and timely customer details while they are on the road. The system also enables the control staff more accurately to track the overall management of its fleet.

Working with Microsoft, the US software group, Ram has also introduced a personal

computer-based electronic mail package which allows new and existing users of Microsoft Mail Remote for Windows to send and receive E-mail messages from the field via a Mobitex radio modem without connecting to a telephone line.

Even though mobile data has had a sluggish start and suffered a number of significant setbacks, most analysts still expect dramatic growth in the mobile data market over the next five years because, as Insight Research, a New Jersey-based research organisation notes in a recent report, "this technology solves a real problem: it allows people to transmit and receive information where they find it most convenient."

Insight predicts that advances in digital electronics and battery and display technologies, coupled with liberalised regulatory environments will result in the 1990s in "a new era in wire-less wide-area communications," with the total global market for equipment of \$2.4bn in 1993 growing to \$5.3bn in 1998.

The US researchers also predict that the world market for wide-area data services will grow from \$3.6bn this year to \$9.2bn in five years' time, a 20.7 per cent compound annual growth rate.

Eventual market size estimates vary wildly but Arthur D. Little has identified 3.8m potential users for wire-less data services in the US within the next decade and Booz Allen Hamilton expects the market to be even bigger with between 12m and 15m users by the turn of the century. Meanwhile, PA Consulting has predicted that there will be 2m users of two-way mobile data in the UK by the end of the decade.

By then it should be clear which mobile data technologies have matured and survived the inevitable shake-out.

Andrew Adonis reports on a contrast in trends

Swedish model catches eye of radiopage operators



Shops are using radiopaging technology from Mercury Paging to tip off police about crimes. The 100th arrest this year from such calls occurred at the Royal Opera House shop in London. Ms Gina Bruce, deputy manager, is seen with PC Siobhan Long and PC Bob McAllister, who co-ordinates the Covent Garden Business Watch.

IN SINGAPORE and Hong Kong, pagers are as much fashion accessories as means of communication. You see them, brightly coloured, hanging from the hips of teenagers "about town" - some of them not even connected to a network.

Twelve to 20-year-olds are a target market for paging operators in cities in the Asia-Pacific region, appealing to youth on trendiness and their parents as a means of locating and retrieving their offspring. According to CIT Research, the London communications consultancy, Singapore has around 500,000 paging subscribers, Hong Kong 700,000, Taiwan 1.2m, South Korea 1.5m and Japan 6.5m.

The contrast with the UK, where paging is seen as a poor, black-coated relation of the glamorous mobile telephone, could not be more stark. The radio pager may have got there first, providing personal communications for hospitals, police forces, fire brigades and the like decades before the first carphone, but that upstart has swept all before it in profile and profits.

Industry sources give a UK paging population of about 744,000, projected to grow at between 5 and 10 per cent a year for the next decade. However, CIT thinks an annual growth rate of only up to 2 per cent is feasible between now and 2000, by when it expects the cellular telephone population to have reached 5m, triple the current number.

CIT believes growth will be stronger on the continent, but

starting from a lower base. By 2000 it projects France with 520,000 subscribers and Germany with 835,000. By contrast, the number of Asia-Pacific pagers is expected to double by 2002, reaching 25m users - 11m of them in Japan.

"One of the most important drivers to the paging market in the Asia-Pacific is its wide-spread acceptance outside the traditional business market," says Mr Robin Meakin, a CIT analyst.

Mass market appeal seems to be more important than competition: in the UK five national networks are fighting it out, while some of the largest markets - including Singapore, Taiwan and South Korea - are monopolies of the state telecommunications operator.

Mr Meakin is sceptical as to whether paging will ever catch on as a consumer good in Europe. He is also doubtful that there is a large market for non-European paging, pointing to the "disappointing" take-up of Euromessage, which allows roaming between five countries, and the low usage of Eurosignal's roaming service option between Germany, France and Switzerland.

On the potential for a European mass market, all eyes are turning to Sweden, where Telia Mobilnet, an offshoot of

telecommunications operator.

Mass market appeal seems more important than competition: the UK has five networks, but some large markets are state monopolies

the state telecommunications operator Televerket, is pioneering a new consumer service. It has two key elements: agreements with distributors and retailers to sell no-frills numeric pagers through high street outlets and mail order, complete with access number and network connection; and a charging structure which places the costs on the caller per call, not a monthly subscriber fee.

Between 9am and 4pm the calling charge is SKr6 (about 60p); at other times, and all day at weekends, it is SKr1.5 (15p). The price differential with mobile phones is dramatic, and the new package appears to be catching on. Since April more than 15,000 "private" pagers have been sold, and supplies are sold out.

Business usage has also increased on the back of the consumer advertising, with subscriber numbers to the business network at an all-time high at the end of June.

"In cellular phones, the buyer seeks the seller; with pagers the seller needs to seek the buyer," says Mr Jan Holmgren, marketing manager for TM's paging service, an ex-Motorola executive who has terminated the consumer launch. TM commissioned market research showing a potential paging market of

1.5m out of Sweden's 8.5m population. "The critical factor is that it should be simple to buy and simple to sell. Distribution is the key, although the charging structure has clearly made it more attractive to the consumer."

Mr Holmgren stresses the price differential with mobile phones. "The activity in cellular is starting to have a pull-through effect with paging, as people are finding out how high is the ongoing cost of cellular," he says.

The UK has five radiopaging network operators: Aircall Communications, BT Mobile Communications, Vodafone, Hutchison Paging and Mercury Paging (which bought Intercity Paging last year). BT has about 35 per cent of the market; Vodafone and Mercury about 15 per cent each.

Monthly service charges are still the norm for all five. Efforts have been made to simplify the service, with the purchase of pagers now accepted and a streamlining of the charging structure.

Hutchison has only one zone for an entire country. Vodafone and Mercury have three. BT has six, its tariffs guide resembling a railway timetable. At the moment, pagers divide into three broad categories: the simplest and cheapest is the one-only radiopager,

which bleeps to alert its owner that someone wants to get in touch with him or her. BT's option costs £10 a month to rent and use for one zone.

The numeric radiopager uses a small screen to display numbers - the phone number of the person who wants you to call them, or a coded message. It costs £18.50 a month to rent and use with a bureau service from BT (one zone).

The alphanumeric radiopager, which has a small screen showing text and numbers, typically up to about 400 characters though some display more. With a bureau service this costs £28 a month to rent and use from BT.

All five operators are considering the "Swedish option", though none has yet made a public move. "With the current tariffing package we don't think it is worth going for the consumer market," says Ms Suzanne Stevenson, paging business manager at BT Mobile. "It might be if you pay per call, but I don't think that changing the colour of pagers

is going to be enough by itself." That is a dig at Hutchison, which is taking a first tentative step into the consumer market with brightly coloured pagers for sale in Dixons at Marble Arch, London. Its Phil-type-made message pagers are retailing for £29 (including first month's subscription); its numeric pagers for £29; and its tone pagers for £49 with a voice messaging service.

"We have taken an important first step," says Mr Nigel Salomon, Hutchison Paging's marketing director. "Our strategy is to take the world's best-kept secret and tell people about it."

Hutchison is also pressing ahead with value-added products, where it is anxious to discard the word "paging" altogether. It recently launched "Pulse", a "pocketable financial information database". Apart from a standard database providing an overview of financial markets, Pulse offers foreign exchange, various indices, equities and metals. It even bleeps when prices or indices pass pre-set levels.

Horse racing results paging services are widely available in Hong Kong. Alas, the last such service has wound up in the UK, and the Swedish model appears to set little store by them.

Cellnet, Vodafone and others will soon have to "compete for real"

Straws in the wind on cellular

IT IS the boast of Vodafone and Cellnet, which hitherto carved up virtually all the UK's cellular business between them, that they have never raised a tariff.

With their margins stratospheric, it is an idle boast. Vodafone last year made an operating profit equivalent to 46 per cent of sales. Cellnet did less well, but its margins are still remarkable. For those concerned about collusion in duopolies, the case for a hard look at the cellular market by the Office of Fair Trading may be overwhelming.

A reference to the OFT is nonetheless highly unlikely in the near future, for two reasons. First, mobile phone users seem to enjoy paying through the nose. At least, they make few protests. Low rates of migration from the operators' high to low-usage tariffs, introduced last year, do not indicate heightened

sensitivity among existing users. With the market set for another record year, with around 400,000 net new connections between Cellnet and Vodafone, operators can continue to make a healthy living from those prepared to pay current rates.

Secondly, increased competition is on the way. The exist-

Mobile phone users seem to enjoy paying through the nose

ing operators seem almost relieved at the prospect. As Mr Gerry Whent said of Mercury One-2-One shortly before the launch of its PCN network in the south-east: "We need you as competition, otherwise we will get regulated." He immediately added, of course, that he expected the mobile business

to rise overall as a result, and Vodafone to benefit thereby. It is too soon to gauge the likely impact of One-2-One, but one thing is clear: low prices, likely to promote a mobile consumer boom, are not on the near horizon.

One-2-One will charge only two-thirds of the price levied by its two rivals for peak rate calls made on its PCN network. But at 15p a minute at peak rate, with an initial connection charge of £20 and a monthly subscription of the same amount, it is still anything but cheap. And that is after the cost of the handset itself, which comes out at about £250. To match Vodafone's Low-call and Cellnet's Lifetime services, One-2-One also has a special tariff for low users. But that, again, is still beyond the reach of most consumer pockets, with a monthly subscription of £12.50 and a peak-rate call charge of 25p a minute.

Vodafone and Cellnet have not been slow to respond. Vodafone has reduced its London tariff to bring it in line with its national tariff - a 25 per cent cut from 33p a minute to 25p at peak rate. It has also announced lower charges for its new MetroDigital service to be launched next month, using a digital network piggy-backing on its GSM network. The MetroDigital rate for daytime local calls will be 20p a minute. Off-peak calls will be priced at 10p a minute.

Cellnet has gone further still, launching a new "Citytime" tariff on its existing analogue network, cutting call prices for subscribers within the M25 area by up to 39 per cent. From next month, the daytime "Citytime" tariff for calls made within the area will be 20p a minute, but at the expense of a far higher price than present - 50p a minute - for calls made outside the M25 zone. All off-

peak calls will be priced at 10p a minute.

These reductions are probably the minimum the older operators could have got away with, given One-2-One's catchment area and the fact that calls are made within the M25. Of course, further cuts are on the cards if Mercury comes

One-2-One has all but shut out the service providers

remotely close to realising the goal of Mr Richard Goswell, its managing director, for 1m customers. They might also come if Hutchison's "Rabbit" telepoint service, which is now complete, looked like creaming off a significant slice of the "cheaper" business market - something it has failed to do so

far, its price providing insufficient compensation for its inability to receive incoming calls, and the restriction of being able to make outgoing calls only in places with a Rabbit sign.

There is a further straw in the wind: the growing reluctance of the operators to sell their wares through service providers, who act as retailers of their "wholesale" tariffs, creaming off a profit on the way. One-2-One has all but shut out the service providers - much to their chagrin - and will deal directly with most of its customers. Cellnet and Vodafone are still bound to use service providers by the terms of their licences; but these terms are subject to review at the end of the year, and it is likely that one or both of them will undertake direct selling of their own, albeit without seeking to undermine the service providers at the outset.

"The industry is moving towards more personalised communications and marketing," says Mr Dean Eyres, an analyst with Dataquest, the consultancy company. "Originally it was just sales, no marketing. Operators realise that

the higher margin business is going, and they have to start competing for real."

As yet, they have barely started "competing for real". It is not just a question of whether an unregulated three-cornered market proves more cost-conscious than the existing regime. There is also the question of how to market

such a complex array of tariffs - now some 10 in all - between the three operators.

Mr Whent does not regard that number as a problem. "It is far fewer than in life insurance," he claims. So wait for the mobile door-to-door salesman around the corner.

Andrew Adonis

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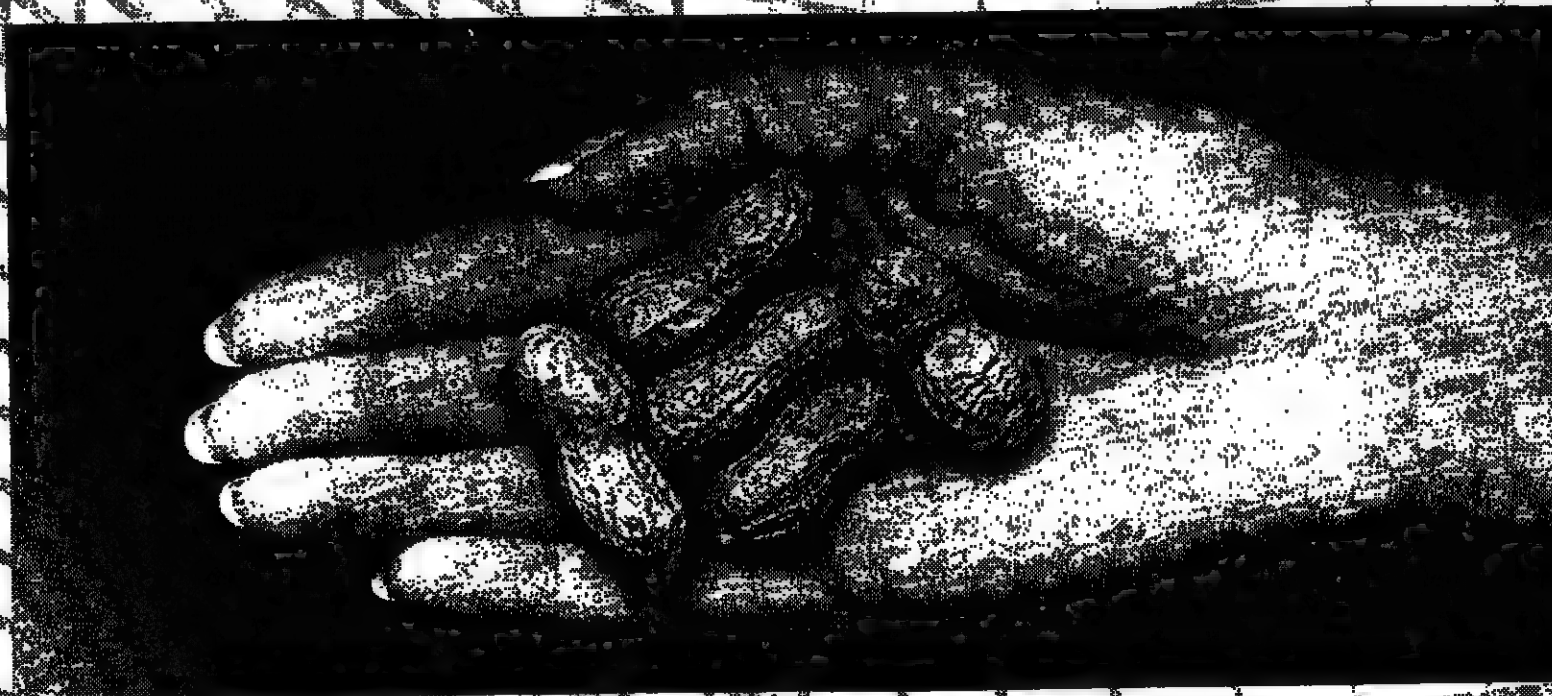
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MOBILE COMMUNICATIONS VI

By general agreement, the launch of telepoint services in Britain in 1989 was little short of a debacle. But, despite the inauspicious start, the UK-developed public cordless telephone service is proving a success in some overseas markets, particularly in south-east Asia.

At the same time operators have found ingenious ways to turn basic telepoint into a two-way service while equipment manufacturers such as Canada's Northern Telecom have developed enhanced telepoint services.

Telepoint's brief but chequered history began in the mid-1980s when Ferranti, the Manchester-based electronics group, developed a "second generation" digital cordless telephone technology known as CT2 which allowed outgoing calls to be made within 100 metres of designated public points - or base-stations.

In 1988 the British government licensed four groups to provide telepoint services based on CT2. Unfortunately, the systems were incompatible with each other, overpriced and poorly marketed in competition with cellular services.

Even multinational backing was not enough to save three of the services dubbed Creditphone, Phonepoint and Callpoint. All were abandoned within three years, having accumulated fewer than 10,000 subscribers between them.

By the end of 1991 the fourth licence held by a consortium called BYPS, comprising Philips, Barclays and Shell, had been sold to a new owner, Hutchison Telecom, part of the Hong Kong-based Hutchison Whampoa group.

At that stage most industry analysts were ready to write off telepoint for good. But some equipment manufacturers including GPT, the UK-based telecommunications equipment manufacturer, Motorola of the

The groups' systems were incompatible with each other, overpriced and poorly marketed

US and Northern Telecom, coupled with network operators like Hutchison, have persevered with the technology.

There is little disagreement that telepoint has taken longer to take off than originally expected. But along the way some important marketing lessons have been learned and telepoint services have proved a commercial success in some markets.

In Hong Kong three operators, Hutchison, Chevalier Telepoint, and most recently Pacific Telelink, backed by Vodafone, the UK cellular telephone network operator, have launched successful services over the past 18 months. Altogether, they have around 55,000 subscribers and are still growing rapidly.

Telepoint services have also



Inter-City Paging's Newspace gives instant access to national and international news stories as they happen. And, for good measure, it can keep you up-to-date with the FTSE index and currency details

Paul Taylor examines the progress of public cordless telephone services

The 'street wise' take to telepoint

proved popular in Singapore, where the Callans service was launched at the start of 1992 by Singapore Telecom and in Malaysia and Thailand where telepoint services are provided by the national carriers. At the end of last year Callans had more than 21,000 subscribers, while Phonepoint in Thailand connected 5,000 subscribers in its first few months of operation.

Mr Ken Miles, project manager for GPT Market Systems which supplies telepoint infrastructure to Chevalier in Hong Kong, attributes the success of telepoint services in these countries to their "street culture" and dense urban populations - both factors which lend themselves to telepoint services.

"Everybody in Hong Kong either has a mobile phone or a pager," says Mr Miles. There are over 800,000 pager users in Hong Kong, many of them aged 18 to 25, and this is the market which has been targeted successfully by the telepoint operators.

Hong Kong telepoint handsets and services are very cheap but the big advantage of having both a pager and a telepoint phone is that it enables the network operator to provide a pseudo two-way service and overcome one of basic telepoint's main drawbacks - its inability, in standard configuration, to receive incoming calls.

All three telepoint operators in Hong Kong now provide a "meet me" service. This works



National Broad Three's data communications service in use in a vehicle, sending and receiving messages from office-based computers

as follows: Suppose someone wants to reach a telepoint subscriber with a pager. The pager number is dialed and the system asks the caller to hold. A message is then sent to the pager asking the owner to dial a pre-set number. Provided the telepoint subscriber dials the number within 60 seconds the call is connected. If there is

no response from the pager the caller is put through to a voice message centre.

This system has proved so successful that telepoint operators elsewhere are now adopting it. In the UK Hutchison's "Rabbit" service has been testing a variation of the "meet me" service using an integrated telephone/pager

handset.

In France where France Telecom's Bi-Sop service was extended from Strasbourg to Paris in April and signed up 10,000 subscribers in the first month, a "meet me" service has been adopted together with an alternative system which also provides pseudo two-way operation. Telecom Finland,

which launched its Pointer telepoint service last November, also began testing a similar paging-based two-way service earlier this year.

Most industry experts agree that Hong Kong is probably a unique market in Asia - not least because it is the only one with more than one telepoint operator. However elsewhere

in the Asia-Pacific region GPT has sold one system in Vietnam, had expressions of interest from India and recently signed an agreement to become one of the main suppliers of telepoint systems to China.

Earlier this year GPT also won a £2m contract to provide a complete telepoint network - including the world's first cordless FAX for the city of Ningbo in Zhejiang province. In less developed countries like China, telepoint can provide a cost-effective basic telephone service where previously there was no service at all.

GPT has also supplied the equipment for Australia's first telepoint service called "Talkabout" which was launched in Brisbane in March by Australia Telecom. Talkabout also achieves two-way operation, though in this case by introducing a concept called "neighbourhood telepoint" or "islands of cordlessness" where part of city or town is covered by CT2 base stations linked by a switch.

Each subscriber has a unique number by which he or she can be called. The system provides subscribers with two-way communications within the area where they live and with their handset they can also be registered for their office or for another telepoint network in another city - or even country.

In Canada an upgraded two-way version of the telepoint cordless telephone specification has been

developed by Northern Telecom and adopted as the country's official cordless phone standard. In January the Canadian government selected four consortia to build and operate national two-way telepoint services based on the CT2-plus class 2 standard which allows subscribers to be reached anywhere on the network, provided that they are within range of a base station.

The new technology also supports smooth handovers between base stations and allows handset manufacturers to incorporate indicators which will tell users whether they are in range of a base station needed to use the handset.

Even in Europe, telepoint is struggling off its early image of being "the poor man's mobile phone" to find limited success in some markets, though progress is still disappointing.

In the UK Hutchison's re-launched national Rabbit network is now complete with over 12,000 base stations covering 700 cities and towns and more than 10,000 subscribers. Hutchison has been aggressively promoting the service and emphasising telepoint as "the pay-phone in your pocket" rather than as a direct competitor for cellular. It has cut prices for handsets, home base stations, calls and monthly subscriptions and set a target of 60,000 subscribers by the end of 1994.

In addition, new telepoint services have been introduced successfully in Holland and Finland and a trial is under way in Belgium.

However, there have been setbacks elsewhere. The Japanese Ministry of Posts and Telecommunications has put back its plans for introducing its telepoint service until 1995 and in Germany Deutsche Telekom has abandoned plans for a full commercial version of its Birdie service. Despite this, some important lessons have been learned from the early

Hutchison has been promoting telepoint as "the pay-phone in your pocket"

disastrous telepoint experience in the UK. Among these, analysts now agree that too many operators were licensed and the service was mistakenly marketed as a competitor to cellular instead of addressing a completely different segment of the market.

In addition, the three UK networks began with inadequate infrastructure in place and handsets which were too expensive, working on incompatible proprietary systems which caused customer confusion.

Today's telepoint operators have addressed most of these shortcomings and have begun to extend the concept of cordless communications from the home into the street and now the office where new cordless systems based on CT2 technology are beginning to appear.

only one part of the mass market story. Four years ago a survey in the US revealed that terminal price was a key consideration in the decision to subscribe to a cellular service.

This is unlikely to be true today in many places. Current and would-be subscribers are now aware of, and concerned about, the relatively high cost of actually using a mobile phone. Initiatives such as off-peak, domestic and volume discounts are designed to address these concerns, and in the UK service provider The People's Phone will discount outgoing calls once a limit agreed beforehand with the customer is reached.

In the final analysis, though, cheaper calls are needed across the board to spark a true mass mobile revolution. "They're definitely required to take the market to its next level of maturity," concludes Motorola's Mr Burns.

The writer is senior editor of Global Telephony magazine

John Williamson looks at an area where the UK is in the forefront of technological developments

Mobile phones: the weight of things to come

WHEN they were launched in the UK in 1987, portable cellular telephones cost over £3,500 apiece. They were brick-like in size and sorely lacking in visual charm. As such, their appeal was largely limited to those whose business and professional lives depended on the ability to make and receive calls when a wireline telephone was not to hand.

Today, the unit retail price of a portable telephone is generally below £300, and can be very much lower if the product is subsidised by a network or service provider. Average dimensions have shrunk to those of a typical video cassette recorder remote control. Leading manufacturers such as Motorola and Nokia are now talking of terminals as fashion accessories of the future, with user-changeable colours and shapes.

Unusually for practically any field of endeavour, the UK is at the forefront of developments in this technology worldwide, thanks in large part to the Thatcher government's creation of a highly competitive market regulatory regime.

In the popular imagination cellular phones are closely identified with the go-getting 1980s, being one of the essential accoutrements of the young and upwardly mobile.

The first UK cellular pilot system was installed by Cellnet to support a world economic summit held in London in 1984. Thereafter, car phones and transportable terminals quickly lost ground in popularity to devices which could be carried in a briefcase or handbag. At present, says Mr Mike Short, Cellnet's

director of external affairs, portables account for around 60 per cent of the 1.75m mobile telephones in use in the UK, and up to 80 per cent of all new sales.

The latter compares with a figure of around 45 per cent for the US, the birthplace of cellular telephony.

Over the last few years technological advances have resulted in analogue cellular telephones which, in the case of Motorola's MicroTAC II, weigh in at as little as 167 grams. Size-wise, a new model being launched by Sony this month has, at 64.2mm x 85.5mm x 24.4mm, virtually the same dimensions as a pack of playing cards.

In spite of dramatic reductions in mass and price, national penetration rates for cellular telephones remain modest in the extreme.

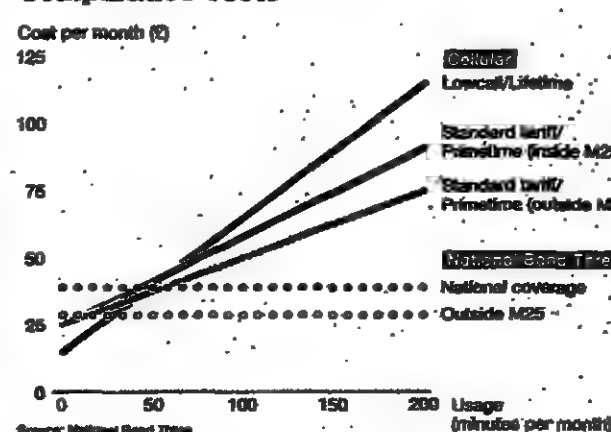
In the UK, cellular ownership amounts to no more than three phones per 100 head of population. Even Sweden, with the world's highest density of mobile telephones, has only 8.6 units for every 100 inhabitants.

In reality, the overwhelming majority of cell phone users are still drawn from the ranks of the business and professional communities.

But this is set to change, and a move from what Motorola terms "the classes to the masses" is already in progress in many parts of the developed world.

This enlargement of the cellular industry's remit is due to three main factors: ■ The established corporate and commercial market is approaching saturation in some locations. ■ Additional competition is entering the cellular arena in some countries such as the UK, Germany and the US. While the so-called personal

Comparative costs



communication network (PCN) operators will inevitably attract some of the incumbent cellular operators' customer base, to survive they will have to grow the market constituency overall.

■ The advent of digital cellular provides a means to support true mass market subscriber populations for the first time. As a rule of thumb, digital networks can accom-

modate around 10 times more subscribers than their analogue counterparts for a given chunk of radio spectrum. This new environment presents the phone manufacturers with some stiff challenges. As is generally acknowledged, portable phones of all types will need to become even less obtrusive than at present.

A move from "the classes to the masses" is already in progress in many parts of the developed world

The ideal, says Mr Bob Weisschappel, senior vice president and general manager of Motorola's worldwide cellular subscriber group, is to make terminals "wearable" to the point where users carry them as naturally as they now do pens or watches.

This does not necessarily mean drastically smaller terminals since there are certain fixed values for "face and finger-friendliness" to be taken into account.

Motorola, the world's leading cellular phone vendor with around 38 per cent of the market, believes that terminal weight will be of more consequence than size. However Nokia, the second largest supplier with 20 per cent of the global business, reckons that weight reduction can reach a point of diminishing returns.

Mr Ansel Vanjohi, vice president of sales at Nokia Mobile Phones, cites market research which indicates that, below a certain mass, there is a reluctance to pay a premium for further weight reduction. "It doesn't feel like it's worth the



The Sony Handset was launched last winter in conjunction with Cellnet's new Lifeline service

money you paid for it," he says.

However, there is a consensus that the larger and heavier digital cell phones now appearing on the market will have to slim down in record time to the size and weight of the best case analogue telephones currently available. "Whenever you come out with

something that's new, it will always be compared with what is already there," says Mr Weisschappel. "That's the standard market reference."

With volume sales of digital terminals, industry calculates that pricing should likewise be comparable. "It's called when," says Mr Weisschappel.

Greater simplicity of operation will be another factor shaping the cell phone business of the future. "To really hit the mass market, the phone has to be simple to use and easy to understand," says Mr Don Burns, general manager and vice-president of Motorola's European cellular subscriber division.

Continuing the VCR remote control analogy, Mr Peter Radley, Alcatel's vice president for mobile communications, says that many phones currently on the market virtually require the application of low-level programming skills before their full functional repertoire can be accessed. Devoting resources to build capabilities which are not used instead of using resources to build facilities which are a lost cost. "It doesn't take the industry forward as far as it might go," he argues.

It is now also an article of faith in the mobile business that the dawning of consumer cellular will be attended by a sizeable proliferation in the variety and types of terminal offered for sale.

This will be a consequence partly of the need to accommodate the huge number of user profiles resident in the consumer sector. "If the phone is going to be with you all the time, and be of value to you, it's got to fit your life-style," comments Mr Radley, "and all our life-styles are different."

Sometimes, as in the case of Swatch's deal to brand-name Nokia equipment, companies

outside the mobile field will try their hand at popularising the mobile phone.

Further stimulating product variety will be the desire by both incumbent and incoming operators to differentiate their services.

A current example of this is

Many phones virtually require low-level programming skills before their full repertoire can be accessed

the One-2-One PCN phone built by Motorola with styling, including a distinctive "thumb print" master control button, contributed by the operator Mercury.

It is clear though, that the convenience, utility and styling of the portable phone are

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3. **WE WILL** achieve this by making a 40% reduction in fixed charges. Connection will be £30 instead of £50. Line rental will be £15 per month instead of £25.
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With a Cellnet phone, help and advice are never far away

LAST MONTH the dream of a truly global handheld mobile telephone service moved a step closer when Motorola, the US electronics group, won financial backing for its Iridium satellite telecommunications system - described as the world's biggest private-sector aerospace project.

Companies from North and South America, Europe and Asia agreed to provide \$100m in cash and promised another \$700m as the first stage in financing the \$3.4bn Iridium project.

Motorola, which conceived the project, has invested about \$27m of the \$800m itself and expects its stake to fall to 15 per cent as new investors join. Other US investors include Raytheon, the aerospace company, and Sprint, the telecommunications group.

In Europe Stet, the holding company for Italy's domestic and international telecoms businesses, is involved as is Mawarid, a Saudi Arabian industrial group. The Japanese, including Sony, Mitsubishi and Mifumi, have invested as the Nippon Iridium Corporation.

The financing agreement gives Motorola a clear lead in the race to build a mobile telephone system capable of handling telecommunications traffic literally "from anywhere on earth".

Satellite systems already provide a range of key telecommunications services including maritime and aeronautical communications where land-based systems are not an option. They also provide links to inhospitable and remote areas of the world using briefcase-size portable satellite terminals, such as those supplied by Inmarsat, the London-based 6-member International Maritime Satellite Organisation.

These mobile communications satellite services are mostly based on geostationary satellites (Geos) which orbit the earth at a height of 12,000 miles or more. In contrast the Iridium system, and a handful of similar schemes proposed by other consortia, are based on an emerging technology called low earth orbit satellites (Leos).

Leos orbit at a much lower 500 to 6,000 miles. Because they are closer to earth, telecommunications systems built around Leos should suffer less from the characteristic echo heard on some satellite voice links.

Perhaps more importantly, they will work with much less power - and therefore smaller and lighter and cheaper - telecommunications equipment including pocket-sized handsets.

However Leos do have a

GLOBAL TECHNOLOGY PROJECTS

Satellites move closer to earth

Market volume (000) by segment 1988-91

| | 1988 | 1989 | 1990 | 1991 | Compound annual growth rate |
|-------------|-------|-------|-------|-------|-----------------------------|
| Cellular | 640 | 965 | 1,280 | 1,430 | 31 per cent |
| Pager | 385 | 610 | 805 | 840 | 21 per cent |
| PMR Mobiles | 600 | 680 | 725 | 830 | 11 per cent |
| TOTAL | 1,605 | 2,255 | 2,590 | 2,900 | 22 per cent |

Source: Datamonitor Analysis, Industry Interviews

Market volume (%)

| | 1988 | 1989 | 1990 | 1991 |
|-------------|------|------|------|------|
| Cellular | 39.9 | 42.2 | 48.6 | 49.3 |
| Pager | 22.7 | 27.3 | 23.4 | 22.1 |
| PMR Mobiles | 37.4 | 30.5 | 28.0 | 28.6 |
| Total | 100 | 100 | 100 | 100 |

Source: Datamonitor Analysis

number of disadvantages. Like Geos, they are solar powered but because they orbit lower they will spend more time in shadow and therefore have a much shorter lifespan of around five years compared to 10 or more for conventional satellites. They also rely on largely untested digital telecommunications technologies.

But their biggest - and costliest - disadvantage is that to provide reliable global coverage many more Leos are needed than would be the case with their higher-flying counterparts. In the case of Motorola's Iridium project for example, 66 small telecommunications satellites will be required.

Iridium plans to place the "constellation" of satellites in orbit over two years starting in 1996 and will use a combination of McDonnell Douglas Delta rockets from the US, the Proton rocket from Russia and China's Long March launch

Low earth orbit satellites have a number of disadvantages, such as a shorter lifespan

vehicle. Commercial services would start in 1996.

Another five US-based consortia have proposed similar schemes although none are quite as ambitious as Iridium and no other project has yet won hard cash financial backing.

They include Odyssey (6-12 satellites), Globalstar (48 satellites), Ellipso (12-24 satellites) and Constellation (48 satellites). Participants in these other Leo telecommunications projects include

US aerospace companies Loral, TRW and Fairchild; France's Matra, Aerospatiale and Alcatel; Deutsche Aerospace; Matra-Mareconi, the Anglo-French joint venture; and Italy's Alenia.

Most of the groups plan to start commercial operations between 1996 and 1998, some with coverage limited initially to the northern hemisphere.

Another group, American Mobile Satellite, a joint venture between McCaw, Hughes and MTSI, already has a geostationary satellite system in operation although coverage is limited to just North America.

Several other groups including Orbital Sciences and Starvis Global Positioning of the US have plans for Leo systems which would provide data rather than voice services.

Motorola's success in securing financial backing for Iridium is expected to trigger a race between the other Leo contenders. Not only are there limits to the world's satellite launching capacity, but most analysts believe the market can probably support only two competitors.

To supplement revenues from voice traffic Leo systems will also carry fax messages, paging, facsimile, computer data and provide radio-determination satellite services, which locate telephones by latitude and longitude.

Iridium hopes to attract between 1.5 and 2 per cent of the number of cellular telephones users by the end of the century - perhaps as many as 1.5m subscribers.

Each customer will have to buy either an Iridium handset or a dual purpose handset

which will work with both Iridium and the buyer's own local mobile telephone network. Calls will cost about \$3 a minute, expensive in comparison with conventional cellular rates.

Some analysts question whether Leos make economic sense as a mass market voice telecommunications delivery system in competition with terrestrial-based networks.

Even if the economics of Leo telecommunications networks can be worked out, their backers face some formidable other problems. Not least is the need to raise further substantial funding.

Iridium, for example, will need to follow last month's initial funding tranche by another of almost equal size within two years. The remaining 60 per cent of the money needed will come from the debt market, says Goldman Sachs, Motorola's adviser. By that stage Iridium and system developers will also have to overcome a number of other difficult issues if they are to win the backing of international investors.

Among these is the issue of frequency allocation. Last year the World Administrative Radio Conference in Spain agreed which frequencies to allocate to Leos in principle.

But since then, the various groups backing the systems have been unable to agree how this allocation should be divided up - threatening to delay the timetable for licensing global mobile

satellite systems in the US.

The dispute has arisen because Iridium, unlike all its other rivals, plans to use time division multiple access technology - which does not allow sharing - for its system. Each TDMA user has to be granted the exclusive use of a designated block of frequencies. In contrast, all the other proposed systems would use code division multiple access or spread spectrum technology which is able to share a block of frequencies. The US Federal Communications Commission has yet to rule on the issue.

Another set of unresolved problems relates to who should regulate Leo operators - an issue which is exercising the European Commission and other would-be regulators. Motorola, like most of the other contenders, has only an experimental licence from the FCC while a European Commission report on Leo satellite networks in December 1992 said it would take at least another five years to answer regulatory and other questions.

However the biggest problem remains the apparent potential oversupply of satellite system operators. That has not been eased by Inmarsat's own plans for a new satellite-based global hand-held mobile telephone service designated Project 21.

Inmarsat, seen by many as the main rival for Motorola's Iridium project, had planned to base Project 21 on a \$2bn Leo network. However, at the end of July it abandoned the Leo concept in favour of a network using fewer satellites placed in higher geostationary or intermediate orbits.

The decision to opt for a conventional system, taken after Inmarsat commissioned reports on the various options and a potential user survey, should enable Inmarsat to reduce its investment to about \$1bn.

But whether the decision will benefit Iridium and the other Leo groups is a moot point. On the one hand, it means Inmarsat is giving up the supposed advantages of Leos and could have implications for the type of services that it is able to offer. This may make it easier for Motorola and others to secure investor support for their Leo systems. On the other hand, it highlights the technical complexities of Leo systems and may enable Inmarsat to provide a significantly cheaper service.

In the next few years these contrasting approaches will be put to the test. Whatever the outcome, it seems certain that by the end of the decade satellites will have added another important dimension to hand-held mobile communications.

Paul Taylor



Using a satellite phone, a doctor can still keep in touch via mobile phone, whether out on a call or in the surgery



Drivers stuck in traffic or unable to get the car out of the garage can inform the office by phone or via a printer

Company Profile: NORTHERN TELECOM

Running hard to make up lost ground

NORTHERN TELECOM spent most of the 1980s carving out a market in the US for its big public switches, and developing a new fibre-optic transmission system. It failed to notice the rapidly growing cellular market.

The Toronto-based company is now having to run hard to make up lost ground. "We're still a small player coming in late," says Mr John Roth, president of Northern's two-year-old wireless systems division, which now employs about 3,000 people.

While Mr Roth says that Northern already has a "superior product", he acknowledges that it has yet to build a reputation or a market presence which can match its rivals, notably Sweden's Ericsson.

Its efforts to do so have so far had mixed results. On the one hand, a slew of new products and two international

joint ventures have succeeded in raising its profile in the cellular business.

Revenues have tripled in the past two years (Mr Roth declines to be more specific). Breakthroughs have included an order for switches and other cell-site equipment from Southwestern Bell, the Texas-based utility which has previously placed all its cellular business with AT&T, Ericsson and Motorola.

Northern is also supplying equipment for a residential wireless-telephone system being developed by Ionica, the UK company which obtained a public telephone operator's

licence earlier this year.

But Northern's entry into the cellular market has not been without setbacks. Its overall market share remains small.

Northern's strength is its

Northern's overall share of the cellular market remains small

switching expertise. It claims that its DMS-MTX SuperNode digital switch has more than double the capacity of its nearest competitor.

Northern expects demand for

such high-powered switches to soar as the distance between cells continues to shrink and more calls from mobile phones require "hand-offs" from one cell to another.

A big challenge, however, has been to improve its access to radio technology. Northern gained one foothold with its purchase last year of the cellular radio manufacturing business of Novatel, a financially strained Alberta company. Northern has moved production to its own plant in Calgary, from where it has shipped about 12,000 digital radios.

But a joint venture with

Motorola, to serve the North American market, has failed to meet expectations. Mr Roth says that "we thought that (Motorola) would have a stronger radio portfolio than it turned out they actually had."

Another point of friction has been Motorola's strong commitment to Code Division Multiple Access, a new - but controversial - radio-frequency technology. CDMA clashes with the digital Time-Division Multiple Access technique favoured so far by Northern.

The joint venture has been all but disbanded, although the two companies still plan to press ahead with cellular

systems which integrate Northern switches with Motorola wireless equipment.

A global partnership with Matra Communications of France, based on the European Groupe Special Mobile wireless

The global partnership with Matra has proved fruitful

standard, has been more fruitful.

This joint venture, known as Nortel Matra Cellular, installed a GSM cellular network for Optus Communications of Aus-

tralia earlier this year. It also has orders from Austria, and is currently negotiating a sizeable contract in Germany.

In North America, Nortel Matra has provided handsets and other equipment to MCI, the US long-distance carrier, for GSM trials in Washington DC. The tests aim to give cellular subscribers access to such features as voice mail and screening incoming calls.

Northern's thrust into mobile communications has also taken it into the low-powered end of the market. Its digital Companion wireless system is designed for customers - such as hospitals, car dealer-

ships and hotels - whose employees need a cordless phone without the range of a full-scale public cellular network.

The Companion system can be used either as a sophisticated two-way radio, or linked to a switchboard as an adjunct to an office telephone.

Employees can answer calls dialled to their internal phone number either on a wired telephone or a cordless handset. Numerous other variations are being developed, including a system which will link divisions of the same company located in buildings miles apart.

British Telecom began offering Northern's Companion system last June. Mr Roth expects that customers in 15-20 countries will have signed up by the end of this year.

Bernard Simon

MOBILE COMMUNICATIONS XII

Mark Newman looks at developments in eastern Europe

Only the elite can afford such prices

CENTRAL AND eastern Europe were going to do it differently. Instead of digging up roads and laying down cables, many experts in the telecommunications industry said the new democracies would be better off using wireless communications systems to vitalise their crumbling telecommunications infrastructures.

But things have not quite worked out as the experts hoped. Mobile telephone networks have been built in almost every capital city over the last two to three years, but services are expensive even by western standards and affordable only by an elite band of foreign businessmen and government officials.

Meanwhile, there has been little improvement in the quality or availability of local network services. The only exception is eastern Germany, where Deutsche Telekom is investing DM70bn on installing a new telecommunications infrastructure. It has used modified versions of existing cellular telephone networks to provide services to businesses in a number of towns and cities, but this is only an interim measure before cables are laid.

There are 11 cellular telephone networks in operation today across central and east-

ern Europe, providing service to approximately 60,000 subscribers in markets with populations totalling 115m. In all of these countries the networks are operated by joint ventures between the local telephone network operator - which retains a majority interest - and one or more foreign telephone companies.

US West, the US regional telephone company, partners PTTs in five markets - Hungary, the Czech Republic, Slovakia, Moscow and St Petersburg. Estonia and Latvia have both chosen Telecom Finland and Swedish Telecom as their joint venture partners, while Lithuania operates a joint venture with Tele Danmark and Millicom International Cellular, a Luxembourg-based company. In Poland, France Telecom and US telephone company Ameritech are the foreign partners, while in Romania, Telefonica of Spain has a joint venture with Rom Telekom. Ukraine Mobile Communications, which opened its

network on July 1, has three foreign partners - Deutsche Telekom, PTT Telecom Netherlands and Tele Danmark.

The first subscribers to cellular telephone services in eastern Europe used them almost exclusively as a substitute for the fixed network. In many countries, people have to wait years for a telephone line to be installed. Even then, it is hard to get an international line. A cellular telephone line can be switched on in less than a day, and access to the international network is never a problem.

Usage levels are two to three times higher than in western Europe at around 250 minutes a month. A large part of this is made up of international calls.

Subscriber levels fluctuate widely. Westel, the joint venture between US West and the Hungarian Telecommunications Company, is the most successful of the 11 operators. It had 32,000 subscribers by the middle of this year, four times as many as any other system. Mr Mark Bell, an executive

| East Europe: ownership structure of cellular telephone operators | | |
|--|-------------------------------|--|
| Country | Company | Ownership (%) |
| Czechoslovakia | Eurotel | US West 24.5, Bell Atlantic 24.5, Ministry of Posts and Telecommunications 51 |
| Estonia | Eesti Mobiltel | Estelcom (Estonian PTT) 51, Swedish Telecom 24.5 |
| Latvia | Latvian Mobile Telephone Co | US West 49, Hungarian Telephone Co 51 |
| Lithuania | Comifit | Swedish Telecom 24.5, Telecom Finland 24.5, Latvian State Radio and Television Centre 23, VEF (electronics manufacturer) 23, Latvian Telecommunications Centre 5 |
| Poland | Polska Telefonia Komunikacji | Millicom International Cellular 25, Telecom Denmark 20, Lithuanian Telecom 41, Antena UAB 10 |
| Romania | Telecom | Ameritech 24.5, France Telecom 24.5, Polish PTT 51 |
| Russia | Delta Telecom | US West 40, St Petersburg telephone authorities 60 |
| St Petersburg | Moscow Cellular | US West 22, Millicom International 20, Ministry of Posts and Telecommunications 50, Eye Microsurgery Science and Technology Complex of Moscow 8 |
| Ukraine | Ukraine Mobile Communications | Deutsche Telekom 16.3, Tele Danmark 16.3, PTT Telecom Netherlands 16.3, Ukraine PTT 51 |

All operators use the GSM-450 system

Source: Financial Times Mobile Communications

director for operations at US West Spectrum Enterprises, says that "Initially people bought cellular telephones as a substitute for the fixed network, but they tend to hold on

even after the basic telephone service has improved." Subscriber growth in Hungary is higher than in most western European countries. Other US West joint ven-

tures in eastern Europe have been less successful. Delta Telecom, its St Petersburg venture, has only 1,130 subscribers. Moscow Cellular Communications has 3,550 subscribers,

and the Eurotel Prague and Bratislava companies in the Czech Republic and Slovakia have a total of 9,100 customers.

The high price of the services in these countries has contributed to the slow take-up. A survey by the FT newsletter Mobile Communications last year demonstrated that the average cost of buying and using a cellular telephone for a year (assuming that a subscriber makes 250 minutes of calls a month evenly divided between local and international calls) was \$7,500.

It is the high upfront cost of subscribing that produces the major barrier to a purchase. The average cost of buying a transportable telephone and connecting to the cellular network was \$2,020 in 1992, according to the survey.

But the high prices will come under pressure with the launch of competing networks. Russia has already awarded 12 regional cellular telephone licences for systems using the European digital GSM standard. Hungary has shortlisted five bidders for two GSM licences. Poland, the Czech Republic, Slovakia and Poland all plan licensing procedures for GSM network operators.

There has been some frustration in a number of central and

east European countries about the high price of mobile communications services. When the Hungarian government drew up a licensing process for two GSM licences, it originally intended to favour those bidders who planned to set tariffs at the lowest level.

But it changed its mind last month and the adjudication process will now favour the consortia which offer the highest bids for the two licences. A group comprising BT, France Telecom and Deutsche Telekom has already offered \$8m for the licence. With a second round of bidding still to come, the two licences could generate close to \$100m for the Hungarian Treasury.

The Hungarian situation illustrates the dilemma that countries in the region face when deciding telecommunications policy. Delivering high-quality telecommunications services to businesses and residential customers is clearly a priority, but when the opportunity arises to replenish depleted state coffers by selling the right to offer services to foreign telephone companies, the temptation to take the money invariably proves the decisive factor.

The writer is editor, Financial Times Mobile Communications

Asian demand seems insatiable, writes Mark Newman

Top of the growth league

IF you have flown from London to Hong Kong recently, there is a good chance that down in the hold your luggage was nestling next to a consignment of cellular telephones.

Exporting cellular telephones from the UK to Hong Kong and eventually China has become a lucrative sideline for cellular telephone dealers. Manufacturers already supply China directly, but demand far outstrips supply and dealers can make a lot more money selling a handset to a middleman in Hong Kong than to a UK mobile phone user.

The cellular telephone has become a symbol of China's dash for prosperity, like it was in London and New York. The brick-like mobile phone that Michael Douglas used on the beach at dawn in the film Wall Street is a small object of desire in the Guangdong province next to Hong Kong - in spite of the fact that Motorola of the US, the maker of the telephone, has since brought out lighter, smaller models.

China's cellular telephone users grew from 38,000 in January 1992 to 180,000 at the start of this year. There were over 200,000 subscribers by the end

of June. All but five of China's 30 provincial state-owned telephone operators have cellular telephone networks, and the National Ministry of Posts and Telecommunications has been besieged with requests from the provinces to finance network expansion programmes.

So confident are they of future growth that leading cellular telephone suppliers such as Motorola, Ericsson and American Telephone and Telegraph have set up joint ventures in China to manufacture cellular telephone networks and handsets.

While China has been singled out by the leading telephone companies as one of the most significant markets in the 1990s, opportunities are presenting themselves throughout south-east Asia, particularly in mobile communications.

Licences to operate cellular telephone networks are being advertised in most countries in

the region. Australia has awarded two licences within the last two years to operate digital networks based on the European GSM standard. A consortium of Cable and Wireless and BellSouth of the US won one licence, while the UK cellular telephone operator Vodafone is the largest foreign shareholder in the second licence.

McCaw Cellular, also of the US, is a shareholder in the Smartcom consortium in Hong Kong, which opened the colony's fourth cellular network in the spring.

In Japan, the Tu-Ka and Digital Phone consortia which are building regional cellular telephone networks across the country, contain major Japanese industrial groups such as Nissan Motor and Toyota. BT, Cable and Wireless and Pacific Telesis are also shareholders.

A number of licence opportunities are still being contested.

Binarian, a Malaysian industrial group which has been awarded a licence to operate a GSM network, is in discussions with a number of possible overseas partners. Thailand's cellular operator, Total Access Communications, is doing likewise. Vietnam is contemplating the award of a licence, while South Korea started a licensing procedure but failed to finish it after the winning bidder returned its licence following a change of government and allegations of corruption.

India awarded six regional licences last October, but a successful high court case brought against the adjudication committee by an unsuccessful bidder has threatened to overturn the awards.

During 1992, the number of subscribers to cellular telephone systems in the 12 largest south-east Asia and Australasia markets grew by 50 per cent from 2.7m to 4m, accord-

ing to figures published by the FT newsletter, Mobile Communications.

It is the fastest-growing region in the world, outpacing Europe where the 12 largest markets grew by a comparatively sluggish 27 per cent, and the buoyant US market whose cellular population rose by 48 per cent over the course of the year.

Japan accounts for 40 per cent of subscribers in the region, but has grown more slowly than some other Asian markets. This may change with the launch of new regional services using digital technology, and a change in the law from April 1994 when, for the first time, subscribers will be able to buy mobile telephones rather than have to rent them.

Mr Andrew Blaxel, who was posted to Hong Kong by UK cellular telephone group Vodafone to compete for licences,

SE Asia and Australasia: cellular subscriber growth in the 12 largest markets

| Country | Subscribers (January 1993) | Subscribers (January 1992) | Growth (%) |
|-------------|----------------------------|----------------------------|------------|
| Australia | 559,000 | 336,000 | 64 |
| China | 180,000 | 38,000 | 321 |
| Hong Kong | 233,000 | 180,000 | 29 |
| Indonesia | 31,500 | 16,000 | 97 |
| Japan | 1,614,700 | 1,251,000 | 29 |
| Malaysia | 207,000 | 135,000 | 53 |
| New Zealand | 93,900 | 69,200 | 36 |
| Philippines | 55,000 | 40,000 | 38 |
| Singapore | 111,000 | 70,000 | 58 |
| South Korea | 271,000 | 173,300 | 56 |
| Taiwan | 428,900 | 186,500 | 116 |
| Thailand | 256,800 | 154,000 | 67 |
| TOTAL | 4,021,800 | 2,588,400 | 50 |

Source: Financial Times Mobile Communications

says any comparison between the markets for mobile communications services in Europe and south-east Asia is difficult. People do not seem to buy mobile telephones for the same reasons as in Europe, he says.

"It doesn't seem to be related to tariffs," Mr Blaxel comments. "It seems that the demand for cellular telephones is closely related to the size of the wealthy populations in urban centres."

Whereas in the UK, the majority of mobile phone users are tradesmen, in countries such as Thailand and Malaysia, a large proportion are traders. "They use cellular telephones because the local telephone service is so awful," adds Mr Blaxel. "In many countries you can be kept waiting for up to six months for a telephone line."

Even when telephone lines are available, the quality of the

service, particularly for international calls, can prove a headache. It is often easier to make an international call on a cellular phone where the operators have managed to secure preferential access to international telephone gateways.

In Hong Kong and Singapore, telepoint services - which only allow outgoing calls and cannot be used in cars - have been successfully introduced after failing to establish themselves as alternatives to cellular telephones in the UK and Germany.

Mr Blaxel reckons this is due to the high population densities of these countries, which makes it relatively cheap for telepoint operators to build networks providing 100 per cent population coverage.

"In Hong Kong, you can clip a telepoint phone on your belt as you leave your apartment in the morning, and make calls as you walk to work and until you arrive at the office. The telepoint phone can then be converted into a high quality cordless telephone for which normal tariffs apply. You can hardly imagine a similar sort of service being popular in Manchester," says Mr Blaxel.

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MOBILE COMMUNICATIONS XIII

Joia Shillingford on how new technology is likely to change employment practices

More workers will be flexible

MOBILE COMPUTING and communications are helping to fuel the boom in flexible working. Ms Amanda Lavery of Ovum, the technology research company, estimates that by the year 2000, the number of company-employed flexible workers (commonly called "teleworkers") will increase 20-fold - from the current 800,000 to 12m in the US and Europe. She defines flexible working as "any work carried out using a computer and/or telecoms, outside company-owned premises by a company's employees".

In a new report, Ovum estimates that the value of the market generated by flexible working in Europe and the US (including hardware and software sales, datacoms equipment and annual data traffic) will increase 30 times from \$1.1bn today to \$33.4bn by 2000.

These projections may seem wildly optimistic but a number of factors are driving the trend: the desire to bring sales and service closer to the customer; falling computer, software and telecoms costs; and the availability of new products which make it easier for mobile workers to keep in touch with the office. These products include:

■ Wireless access to in-house electronic mail. Using new Microsoft software, users need only plug a Mobitex radio modem into their portable PC to exchange messages with other Microsoft Mail users on their office local-area network. Data is transmitted over the

RAM Mobile Data wireless network.

■ Computerised fax systems which allow remote access. For example, a system from Vienna-based Topcall enables users to go to any fax machine outside the office, dial in a 3-digit PIN number and get all their faxes for that day forwarded to them.

■ Personal communicators/personal digital assistants (PDAs), such as those from Apple, Sharp and Amstrad. These videocassette-sized computers can be used in conjunction with an optional modem to send or collect information from the company network. Apple (UK) is believed to be planning a link between its Newton PDA and the Rabbit network (not currently approved for data), which would provide a form of wireless data communications.

■ Devices for linking ordinary modems to mobile phones, so that portable computer users can send or receive data without going to a conventional phone. TeleAdapt, a UK-based company specialising in helping mobile workers communicate, has introduced a device that will connect any modem to the base of either an NEC P3 or OKI 900-series cellular phone. The



A two-way link between service engineers and their base, reducing the time taken to respond to fault reports, is provided by the Emissary service from Cognia, which has a two-way text messaging facility

US-manufactured device, called Axcell Cellular, works by making the modem believe it is connected to the standard telephone network.

■ Answering services connected to pagers. BT has

launched Response Master, a telephone answering service linked to a pager. The user is given two phone numbers: one made available to callers which acts as an answering machine, the other which allows access

to stored messages. The user's pager beeps when a message is left, but he or she can retrieve it at a convenient moment.

BT expects the service (which costs 54p a day including a simple pager) to be used by maintenance engineers. It saves engineers from having to break off a job to take a call, but the pager will beep every two minutes until a new message is retrieved.

The number of products designed for flexible working is increasing as computer and telecoms companies realise the huge sales opportunity that has been created. A whole host of lighter, cheaper, more powerful, and more energy-efficient portable computers has come to market, some allowing handwritten input via a "pen" stylus.

In addition, some suppliers are actively encouraging the spread of flexible working by supporting teleworking initiatives, such as the one-year Connected Community project. Backed by BT, Apple, the Department of Trade and Industry, and the Rural Development Commission, this involves equipping a "tele-centre" in the small agricultural town of Kington, in Hereford and Worcester, with

the latest technology, and studying its impact on the community.

But the trend towards flexible working is not being driven by technology alone. Ms Lavery says there is now a body of experience showing the kind of benefits teleworking can bring, as a result many large companies are actively looking at this area.

Some want greater organisational flexibility to respond to positive changes (such as an increase in new business) or negative changes (such as flood, fire or terrorist attacks on company premises). Mr Peter Thompson, co-author of Henley Management College's Future Work Forum survey, says: "The recent floods in the City have highlighted the vulnerability of organisations that are all located in one place".

Concern about the environment is also helping to generate interest in flexible working. Thirty-five per cent of respondents to the Henley survey cited environmental issues (eg, reducing traffic congestion and pollution) as a driver for change.

■ Benefits. Some employers are deterred by the cost of equipping potential flexible workers with adequate hardware and software. But for

those who are willing to make the investment, the benefits include:

● Cost savings in the long term. Hewlett-Packard was able to save \$300,000 annually by equipping its maintenance engineers with flexible solutions.

● Improved accuracy. In California, police have been given pen computers which they can use to produce traffic citations. The software prompts the user with a checklist of questions such as "At what speed was he/she driving?" and "On which road?". Then, by checking the information against the central police mainframe, the software decides whether the driver has broken the law and, if so, what the fine should be.

● Increased sales. Drinks company Martini & Rossi increased its sales by 5-10% when its sales force could make on-the-spot quotations, using Poquet notebook computers and mobile printers.

● Staff retention and space savings. A scheme which allows any employee to work from home has helped the Trading Standards department at Oxfordshire County Council to cope with a 100 per cent increase in its workforce despite limited office space. It has also helped the department to hold on to its trading standards officers who, because of their specialist knowledge are in demand from employers, such as large supermarkets.

● Efficiency and customer satisfaction. At "white goods"

supplier Seaboard, field service engineers have been given NEC briefcase faxes (which plug into portable phones) so that they can order spare parts in front of the customer or get call-out details without going into the office. The company expects increased levels of efficiency and customer satisfaction.

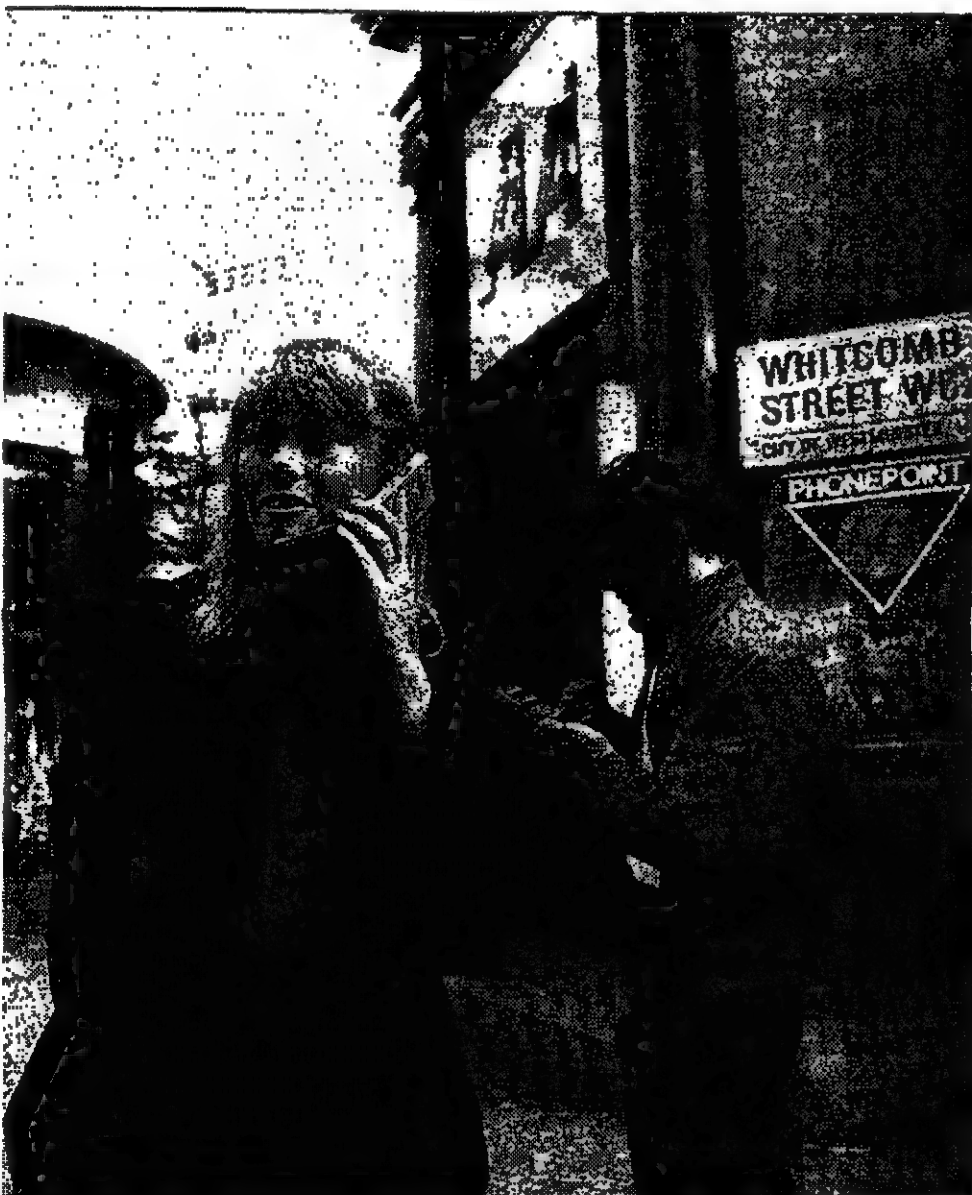
Nevertheless, a number of obstacles remain. According to Henley, the biggest of these are human factors. Half the respondents to its survey of 200 senior UK executives felt that middle management saw difficulty in controlling workers based outside the office.

However, Mr Keith Butterfield, manager of a teleworking pilot at ITSA (a UK government agency) believes good managers have nothing to fear. Based on his visits to US schemes he believes: "Good managers will manage teleworking well, but poor managers will need training and support to succeed."

■ Henley Management College has set up a Future Work Forum for companies interested in flexible working. More information on 0491 371464.

■ Flexible Working with IT: The Business Opportunity has just been published by Ovum at £7.95 (\$13.45). For more information, contact Jennie Batchelor on 071 255 2650 or fax: 071 255 1996.

The writer is editor of the Financial Times newsletter Business Computing Brief



Telepoint technology in action: calls can be made within the radius of a public base station

Catalysts face changing role

Service providers come under threat

THE ARRIVAL of digital cellular, the imminent launch of Mercury's One-2-One service and the need to widen the market for mobile communications have forced the UK's service provision industry to put on its thinking cap.

Service providers have long been accepted as the catalyst that sparked the boom in cellular radio in the UK, but their traditional role as the interface between the network

operator and the customer is now under threat.

One service provider relishing the challenges of the future is North London-based Cellcom. An industry pioneer, Cellcom has been a service provider since cellular began in the mid-1980s. With turnover up 16 per cent to £22.7m in 1992-93 and margins up to 20.5 per cent, Cellcom is well placed to respond to the new networks and services.

The increased promotional

activities of Vodafone and Cellnet have stimulated the UK cellular market. "Business has been exceptionally buoyant and we have had three record months," says Mr Jack Knight, marketing manager of Cellcom. "Churn remains about the same at around 2 per cent a month, but the growth has tended to put this into perspective."

Though Mr Knight sees some of the recent growth occurring among those who previously did not perceive mobile communications as an affordable product, he does not believe that the industry has turned the corner in terms of the true consumer market. "People's patterns of making telephone calls have not yet changed."

He has doubts as to whether the new Mercury One-2-One service, to be launched in London next month, will make a dramatic difference to the market. "To be a success, the new service will have to grow its own market sector. If all it does is take from the existing market, then it has failed. The launch campaign will help to raise awareness of personal communications but it has yet to be seen whether the timing is right or the product is viable."

He points out that the company has made a number of shifts of position on the market it proposes to address. "Mercury is clearly not, at this time, attacking the consumer,

but is going for the small business market."

Britain's service providers have recently complained to industry watchdog Ofcom about some of Mercury's proposals, particularly in relation to handset subsidies. Though the complaints are still being considered, Cellcom and other service providers have applied to Mercury to sell the new service.

The key to selling mobile communications in the mass market is tariffs. "Mercury's tariffs are well down on those currently being charged by the cellular operators but they are offering less," says Mr Knight. "However, the competition is not just Vodafone and Cellnet, it is CTR Rabbit Telepoint and BT/Mercury. For the next stage of development the industry must address the running costs of mobile phones; this is the biggest single factor affecting penetration of the mass market."

One of the problems facing both the digital cellular services and Mercury One-2-One is that the UK analogue networks are still a major threat. The cost, variety and availability of analogue terminals and the range of facilities on offer far outstrip the offerings from GSM and PCN, and are likely to do so for some time.

Mr Knight sees GSM eating its way into the market and addressing niche areas where its special features, such as

pan-European roaming and encrypted speech, are seen as benefits. The UK does not have the problems of some European countries whose analogue networks were overcrowded or non-existent. The transition to GSM will be much more orderly. As UK users look to change their phones they will tend to migrate to GSM if it offers similar or better service.

GSM terminal type approval is still a problem and the industry is reluctant to oversell the service while this barrier exists. "It is important that customers understand the drawbacks as well as the benefits of GSM," says Mr Knight.

Overall, he welcomes the proliferation of new mobile services and networks. "The market needs more facilities and these developments strengthen the case for the service provider. The more networks there are, the more need there is for an independent agency able to stand between them and the customer. Why deal with five separate networks, offering five different services and five separate bills, when you can deal with one service provider, get all the services you want and pay a single bill? The concept of service provision holds up very well as the new networks come on stream - it's a one stop shop for both dealers and the public."

Ian Channing

Company Profile: NATIONAL POWER

Keeping down costs

NATIONAL POWER prides itself on having one of the most advanced information technology systems in the country. In computer networking the UK electricity company "is probably the leader in Europe", according to Mr Paul Miles, the company's IT department services manager.

Mobile communication services are used extensively by National Power. But the resources allocated to the services by the IT department are relatively small. Though 350 people work in IT, Mr Miles employs only one person to look after mobile communication services.

The company uses four different mobile radio systems - on site paging, on site trunked mobile radio, radio-paging and cellular telephones.

There are on site paging and trunked mobile radio systems on most of National Power's 400 sites, with an average of 30 to 40 pagers and 25 to 30 trunked mobile phones per site. Both services link into National Power's private telephone network, which connects the 400 sites to the head office in Swindon.

National Power has 8,500 staff, of which 1,000 are located at head office in Swindon.

Cellular telephones are the company's most expensive item of mobile communication expenditure. National Power's 570 cellular telephones rack up an annual bill of just under £280,000, divided equally between monthly subscription and call charges. Its 300 radio pagers cost £80,000 a year in

service and rental charges. Mr Miles acknowledges that cellular is an expensive system to use compared to the ordinary network.

In National Power's case, the cost to a departmental manager of supplying staff with cellular telephones is particularly high, compared to the fixed telephone network. No internal charge is levied for intra-company calls on the private network and "it comes as quite a shock for managers to see the size of the cellular telephone bill," says Mr Miles.

Cellular costs are kept down by the extensive use of a Callnet service called Call Access. This allows National Power cellular telephone users to make calls to head office or to any of the regional sites at roughly half the normal cellular telephone call rate.

To subscribe to Call Access, National Power has had to install a private circuit between its head office in Swindon and a point on the Callnet network that connects into the BT system. All calls between National Power cellular subscribers and its head office and regional sites pass along the private circuit. Callnet would normally have to route calls from the radio base station to the interconnection point on the BT network.

The speech quality of cellular telephones is "variable" according to Mr Miles. But National Power works very closely with Cellnet and its service provider British Telecom Mobile Communications to discuss black spots in the system. BTMC and Cellnet are "very responsive" says Mr Miles, and Cellnet has in the past acted on its recommendations to improve coverage in different regions.

National Power has four different accounts for its cellular activities, all of which are held with BTMC. But the four accounts are to be rationalised and the company has asked for new quotes from BTMC and other service providers. Large account holders such as National Power can usually obtain discounts of around 10 per cent from published tariffs on call charges and monthly subscriptions.

The majority of National Power's 570 cellular telephones are used by managers in Swindon who spend a lot of time travelling to and from sites, and by what Mr Miles describes as "technical doers". A small number - roughly 40 cellular telephones - are used by field service staff.

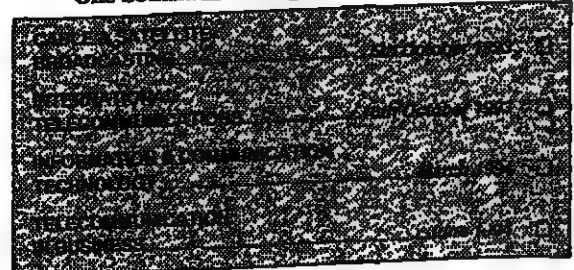
Budgeting for mobile communications services is done on a departmental basis. The job of the IT department is to provide an internal service to internal customers, and it is up to individual managers to decide what services they can afford.

All in all, National Power is satisfied with the mobile communications services it uses. New services such as the European digital GSM system and mobile data hold few attractions for the company, according to Mr Miles. "We do not see digital cellular as a need and the same goes for mobile data."

Mark Newman

FINANCIAL TIMES TELECOMMUNICATIONS SURVEY PROGRAMME, 1993

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MOBILE COMMUNICATIONS XIV

Martin Dickson looks at the implications of the fifth largest takeover deal in the country's history

US market faces challenge of AT&T power

The immense potential of the mobile communications industry in the US has just been underlined by the \$12.5bn agreed takeover bid for McCaw Cellular Communications, the biggest operator in the cellular telephone market, by American Telephone & Telegraph, the largest US long-distance carrier.

The takeover deal, the fifth largest in US history and the biggest in the telecommunications industry, will create an extremely powerful force in the booming cellular market, combining McCaw's entrepreneurial approach to business with AT&T's brand name and technological expertise.

The full bid takes the place of a deal announced last November under which AT&T was to have acquired a one-third stake in McCaw, with the option to take full control later, and the change reflects the difficulties that the two sides found in implementing the earlier plan and the commercial advantages of a full merger.

AT&T's eagerness to get into the cellular market through the McCaw acquisition, and its willingness to pay what the market considers a fairly full price, represents a powerful endorsement of the potential of wireless communications in both the US and around the world.

Mr Robert Allen, AT&T's chairman, has a vision of "anytime, anywhere communications". That will involve individuals having their own mobile personal communications numbers, which they will carry with them. They will be contactable wherever they are, thanks to a variety of new radio communications devices, including phones, personal pagers, fax machines, computers, video screens and devices combining several of these functions.

However, this vision is still a considerable way from fulfilment and faces numerous potential problems.

First, the US telecommunications industry has yet to turn mobile communications from a relatively high-priced business into an affordable mass-market one.

Second, cellular telephony has yet to become a particularly profitable business. The industry faces a heavy capital expenditure burden - some \$11bn in 1993 - as it expands its customer base



Robert Allen, AT&T chairman (left), with Gilbert Williamson, the recently retired chairman of MCR, the AT&T subsidiary, examining the MCR 3170 which, when combined with AT&T's 3730 cellular phone and EasyLink services, provides mobile networked computing - any time, any place

and moves from analog to much higher quality digital technology.

It also suffers high costs in acquiring new subscribers - anything from \$500 to \$1,300 - and suffers from a 33 per cent churn rate - that is, the number of customers who move, change carriers, or cancel service in a year.

At the same time, its revenues per subscriber are dropping as it expands its customer base from deep-pocketed business customers into the much more price-sensitive consumer market. Average monthly bills have fallen from just under \$100 five years ago to around \$70 now. To boost profits, cellular companies may need to reverse this trend, or improve their operating efficiencies, or both.

Third, it remains unclear to what extent the cellular telephone industry will be complemented or challenged by a new system of radio telephony, called personal communications services (PCS), which should be in operation in the US by 1995 to 1996.

Fourth, a huge battle for dominance of the industry is

developing between the various participants in the rapidly converging US telecommunications and television industries.

Still, there is no doubting the promise of mobile communications. The US cellular market has grown from virtually nothing in 1984 to more than 12m subscribers currently and is adding 9,500 new subscribers every day.

EMCI, a communications consultancy, reckons there will

Local monopolies are concerned that AT&T will eventually be able to bypass their wires

be 14.4m US cellular subscribers by the end of 1993, with 17.7m by the end of 1995 and 26m by the end of 1996.

The country also contains some 14m paging subscribers, and 1.4m users of specialised mobile radio, which provides businesses with mobile radio services to meet internal communications needs. Several mobile satellite services are also in the offing, aiming to provide wireless portable phone services in areas not

reached by cellular.

AT&T's entry to the cellular business has the rest of the telecommunications industry worried on several counts. First, it poses a challenge to direct rivals in the cellular business, especially the nation's local telephone companies - the seven "Baby Bell" regional business and independent companies such as GTE.

When the US government set up a cellular network in the early 1980s it gave out just two licences in each area - one for the established local telephone monopoly and one for a new, independent rival.

McCaw, which build up a national presence by taking over many of these independents, is already a tough rival to local monopolies and the injection of AT&T's expertise promises to make it even tougher.

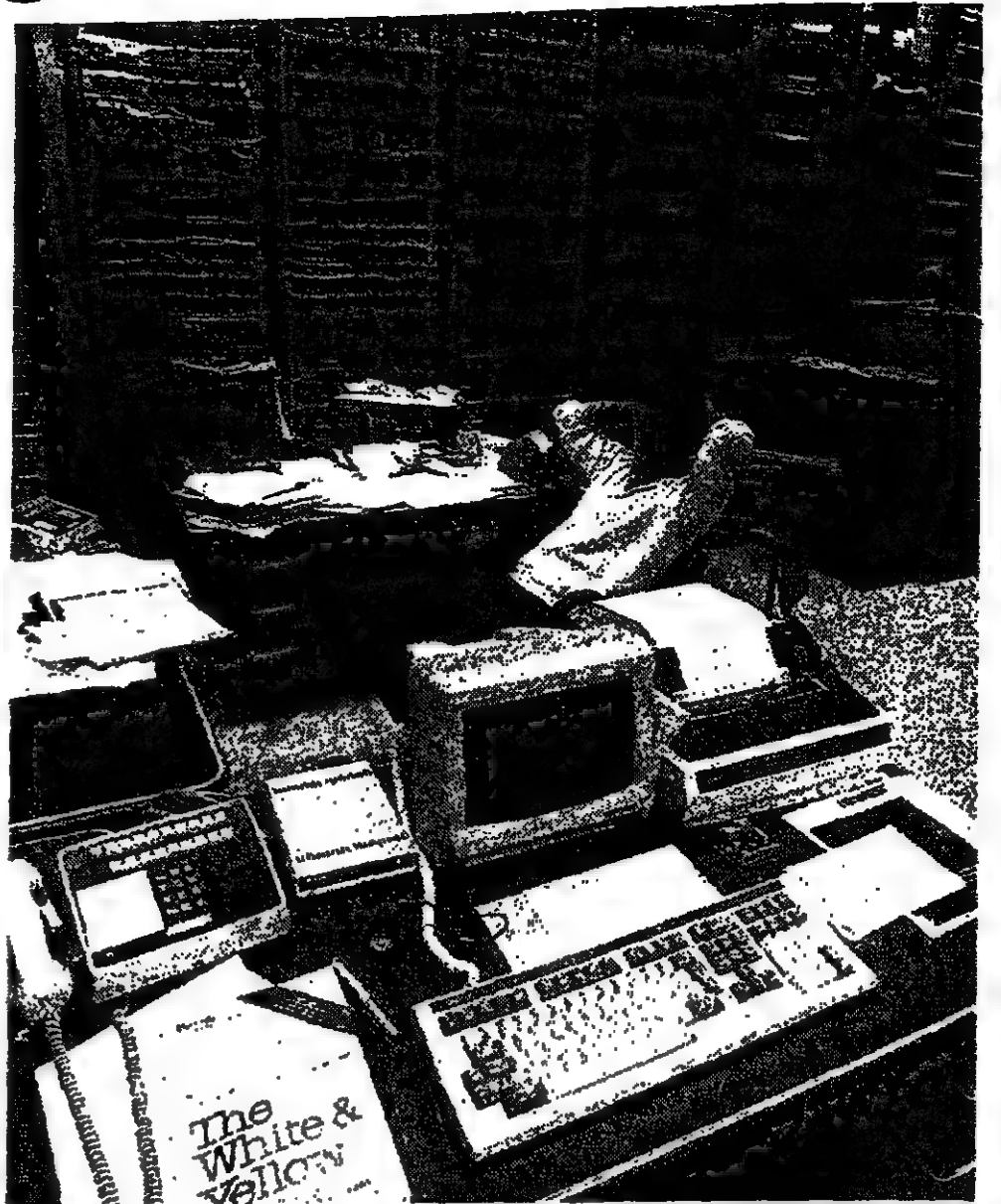
AT&T has one of the best-known and respected brand names in the US, which could help counter the cellular industry's lingering reputation for uneven service; it will be able to package new services combining long-distance and cellular operations; and the computer intelligence

embedded in its network should enable it to offer a more seamless and sophisticated national service.

The local monopolies are also concerned that it will eventually be able to bypass their wires and link up cellular users with the AT&T network, depriving them of the huge access charges that long-distance carriers pay to local phone companies for completion of calls. The takeover will therefore be bitterly opposed by the Baby Bells and other local telephone companies.

It also poses a strategy challenge to MCI Communications, the second-largest long-distance carrier, which has no cellular interests at present. MCI does, however, have a war chest of cash, thanks to British Telecom's decision earlier this year to take a 20 per cent stake in the group, and some of this could be used for a cellular alliance.

An important new element in this struggle will be PCS, a new form of cellular communications, using inexpensive handsets and low-powered micro-cell transmitters in office buildings and neighbourhoods, which promises to



It's all happening: the North Minnesota telephone exchange

Paul Foster

bring wireless communications to the masses.

It could tap a vast new market. A 1991 study by Arthur D. Little, the management consultants, estimated that 10 years after PCS becomes universally available in the US, it could serve as many as 80m subscribers, producing \$30bn to \$40bn in annual revenues - provided the service was priced reasonably.

The Federal Commu-

nications Commission is expected to decide this autumn on several key PCS questions, including the rules for auctioning franchises. It has expressed a bias towards excluding existing cellular operators from bidding in markets they already serve.

The cellular industry seems bound to lose some customers to PCS, provided the latter service proves cheap. But PCS may well turn out to be complementary to cellular,

rather than a direct rival, with the former used mainly by pedestrians and the latter by vehicle-based callers.

The PCS industry may be more fragmented than cellular - some three to five suppliers could be licensed in each area. But the companies which already have commanding positions in cellular seem certain to also be among the major players in PCS, thanks to their technical and marketing expertise.

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HA

INTERNATIONAL COMPANIES AND FINANCE

GM to reduce workforce at Opel plants by 8.6%

By Kevin Done

GENERAL Motors is reducing the workforce of its Opel Vauxhall car and light commercial vehicle operations by 8.6 per cent, or 7,830 jobs, this year. Staffing levels have been battered by the steep fall in new car demand. Mr Louis Hughes, president of GM Europe, said yesterday.

Hourly-paid jobs at GM Europe's plants - chiefly in Germany, Belgium, the UK, Spain and Austria - are being reduced by 9.2 per cent, to around 68,000 from 74,829 in 1992. Salaried jobs, meanwhile, are being cut by 4.2 per cent to 15,700 from 16,500.

By the end of this year, the number of hourly-paid jobs will have been reduced by 13.3 per cent, from a peak of 78,390 in 1991. Mr Hughes warned yesterday the workforce would be cut again next year, "with some significant numbers".

Mr David Herman, chief

executive of Opel, GM's German subsidiary, said Opel had operated profitably in the first half of the year. However, he warned: "It will be difficult to stay in the black for the remainder of the year."

GM Europe overall would "earn a significant profit" in 1993, however, said Mr Hughes. He claimed GM Europe again had the strongest financial performance of the big six volume carmakers in Europe, and would perhaps be "the only one in profit".

He forecast a strong profit recovery in 1994 attributable to measures already taken this year to improve productivity and cut the workforce. "We are relentlessly pursuing cost-cutting," he said.

GM Europe is forecasting a drop of 17 per cent in new car sales across western Europe this year, to 11.2m from 13.5m in 1992, with only a marginal recovery to 11.5m next year. Mr Herman said the decline

in the German new car market had apparently "bottomed out," but there had not been "a clear turnaround in sales".

"We expect the market will increase slightly in the second half of 1993," he said. Both German new car sales and production were forecast to fall by 20 per cent this year.

Productivity at Opel's German plants improved by 7.5 per cent last year, and the company was seeking a similar improvement in 1993, he said.

GM was seeking to turn the Opel brand into an international make. Opel sales outside western Europe were forecast to jump to close to 140,000 next year from 90,000 in 1992 and 40,000 last year.

GM began the assembly of Opel cars in Taiwan earlier this year and plants are to follow in Indonesia and India. In the longer term, this project could be followed by plants in Thailand and Malaysia.

Chrysler unveils new range of small cars

By Kevin Done, Motor Industry Correspondent, in Frankfurt

CHRYSLER, the US carmaker, yesterday unveiled at the Frankfurt motor show a new range of small cars. Called the Neon, the range has set new standards in the US industry for efficiency in development and engineering.

The Neon was developed in 31 months, from design approval to first production, Mr Robert Lutz, Chrysler president, said yesterday. He said development time had been cut from the 40 to 48 months required by most carmakers in Europe and North America.

Chrysler, which has staged a dramatic financial recovery in the past two years, has also cut significantly, to only \$1.3bn, the investment needed for the Neon project. Its development has included four-door and two-door body styles, a new engine and transmission, and investment in two production plants in Belvidere, Illinois, and Toluca, Mexico.

Production of the Neon range, which is set to transform Chrysler's presence in the US small car market, will begin in November. It will be launched in the US market in January, and in Europe in April.

Mr Lutz said the programme proved it was still possible to develop and produce a small car in the US, and without the support of a Japanese partner. Chrysler returned to the European market in 1987 with the sale of vehicles exported from North America, following its ignominious withdrawal from manufacturing in Europe in 1978, when the group was on the brink of financial collapse.

Chrysler sales in Europe have risen 36.8 per cent, to 41,376, in the first eight months. This almost equals the total for last year in spite of the steep 17 per cent decline in total west European new car sales.

Mr Robert Eaton, Chrysler chairman, forecast that sales in Europe would continue to grow at around 20 per cent a year in the medium term.

Volvo emerges playing new role

The Renault deal has transformed the group, writes Hugh Carnegie

Shares in Volvo fell sharply on the Stockholm stock market yesterday as investors contemplated the company's future after the merger of its car and truck manufacturing operations with Renault, the state-controlled French automotive group.

Volvo's most-traded B share, closed at SKr458, down SKr25 from the close on Monday of SKr483. Before the merger was announced, the shares stood at SKr490.

Analysts said the tumble was partly due to worries about the complexity of the deal, which would leave Volvo with a 35 per cent share of a new Renault-Volvo company and the French government with 65 per cent until a planned privatisation issue. "It is the old story of buy on the rumour and sell on the fact," said one analyst.

A more significant concern, however, was over the shape of the Volvo parent group after the merger is completed early next year. By placing its core motor industry operations into

a junior partnership with Renault, Volvo has in effect transformed itself into a kind of holding group with a large number of diverse interests.

"A lot of people are looking at Volvo now as an investment company that will trade at a discount to its net asset value," said Stefan Hansson of Enskilda Research.

Post-merger Volvo will certainly play a different role to its traditional one as Sweden's best-known industrial concern focused on motor manufacturing. Aside from the 35 per cent stake in Renault-Volvo, its main interests will, by next year, be a 100 per cent share in Branded Consumer Products (BCP), and a 25 to 35 per cent share in Pharmacia, the respective food and pharmaceutical offshoots of the soon-to-be-split Procordia.

"The motor company Volvo has, in point of fact, suddenly become an investment company in which the biggest subsidiary makes cigarettes, beer and food," said Svenska Dagbladet, the conservative Swedish newspaper, on its front page yesterday.

Mr Fehr, Gyllenhammar, Volvo chairman, prepared the way for this when he struck a deal earlier this year with the Swedish government on the break up of Procordia, which is controlled jointly by Volvo and the state. The government is to hand over its share in BCP direct to Volvo and is committed, when it privatises Pharmacia next year, to leaving Volvo as the biggest shareholder.

Last year Mr Gyllenhammar also appointed as Volvo chief executive Mr Sören Gyll, hitherto Procordia's chief executive. When the Renault and Procordia deals are complete, Mr Gyll will again find himself largely concerned with his old companies as day-to-day control of Renault-Volvo will be held in Paris.

Volvo will also wholly own Volvo Penta and Volvo Flygmotor, the marine and aero engine companies excluded from the Renault merger agreement.

In addition, it will have eight further interests ranging from 100 per cent of the brokers Alfred Berg, through shareholdings in Custos and Cardo, two investment companies, and a 25 per cent stake in a property company.

Most analysts expect Volvo to seek to rationalise its holdings around the Renault-Volvo and Procordia holdings, easily the biggest and most valuable of its interests. "I believe we will see a lot of divestments in the next couple of years. The main task for Sören Gyll is to see that Volvo gets a clearer structure. There may even be some new investments made," said Bo Engström of James Capel.

Eventually, some believe, BCP - the Procordia food unit whose principal attraction to Volvo at present is strong cash flow - will be sold. That would leave Volvo's central interests in Renault-Volvo, Europe's second largest automotive company, and Pharmacia, Europe's eighth largest pharmaceutical company.

Williams Holdings hints at disposal of two businesses

By Roland Rudd in London

WILLIAMS Holdings, the UK industrial conglomerate, is to focus on three of its five core businesses with the clear implication that engineering and electronics are up for sale.

The new strategy was outlined by Mr Nigel Rudd, chairman, as he unveiled static pre-tax profits of £76.4m (£115m), against £76.2m last time, for the half-year ending June. The shares fell 7p to 326p.

Williams is to concentrate on building products in Europe and the US and fire and safety where many of its brand names, such as Yale and Valor and Thorn Fire Protection, are market leaders.

However, engineering and electronics, which suffered profit falls and account for around 10 per cent of the group's revenue, are understood to be prime candidates for disposal. Many of their businesses are only number two in the market. The desire

to dispose of non-market leaders was one reason which prompted Williams to sell Crown Berger paints in 1990.

Mr Rudd, while declining to comment directly on the future of engineering and electronics, said: "We are focusing on three core businesses which we expect to grow organically and through bolt-on acquisitions."

Borrowings have increased to £210.5m from £161.9m, representing a 30 per cent rise. The rise in debt is mainly due to acquisitions.

Williams has been looking at possible acquisitions with a price tag of up to £300m on both sides of the Atlantic. Mr Rudd singled out Germany as offering interesting buying opportunities.

Mr Roger Carr, managing director, said: "Our investors have told us, without exception, that they will support the right deal."

Operating profit rose by 8 per cent to £86.4m on sales of £889.9m, up from £483.8m. Last

year's pre-tax profits benefited from an exceptional £6.1m, which included the disposal of its Royal shareholding.

European consumer and building products saw operating profits rise to £36.3m from £32.2m on the back of a strong performance from DIY products.

North American consumer and building products, benefiting from cost reduction and the stronger dollar, increased profits to £25.1m from £20.7m.

Fire and safety's profits rose to £20.2m, against £17.5m, excluding a four-month contribution from Thorn Fire Protection which was acquired earlier this year from Thorn EMI.

Profits from electronics and engineering fell to £1.6m from £5.6m and £3.3m from £4.3m respectively.

Earnings per share fell to 8.4p from 9p, although excluding exceptional earnings rose from 7.7p. The interim dividend is maintained at 5p. *Lex, Page 16*

MGN close to cost-saving deal with Maxwell companies

By Andrew Jack in London

MIRROR GROUP Newspapers has provisionally agreed to settle a series of legal claims with the private companies in the empire of the late Mr Robert Maxwell, which will save it nearly £70m (£105m) in tax and costs.

A circular distributed to MGN shareholders yesterday recommends approval of a deal which would waive future litigation and require the group to pay out cash of less than £3m.

The agreement removes the potential for long and uncertain court action and may help ease the sale of the 54.6 per cent of MGN shares currently held by the private Maxwell companies.

Under the plan, MGN will abandon potential net claims of at least £130m against the private companies in connection with money siphoned off by Mr Maxwell. However accountants at

Arthur Andersen, who are the administrators to the private companies, will in turn waive counter legal actions against MGN and allow it to release £18m in provisions.

In exchange for a payment of up to £2.8m, MGN will be assigned losses from the private companies which will reduce its tax bill by up to £50m for the period 1989-91.

Sir Robert Clarke, chairman of MGN, said: "The directors have concluded that the benefits... and removal of uncertainties significantly outweigh any benefits which might accrue from pursuing large but potentially difficult and uncertain claims."

The shareholder circular says the money on which MGN claims from the private companies includes £80m owed to it by Robert Maxwell Group, £30m from London and Bishopsgate Group, and £30m from Bishopsgate Investment Trust.

However Mr John Allwood, MGN finance director, said since the private companies are heavily insolvent, any eventual payments would be unlikely to exceed 6p in the pound on the value of the claims.

He said MGN would be able to reduce its provisions relating to the misappropriated funds, from £50m to £35m, as a result of the settlement, and release up to £4m in tax provisions.

The agreement proposes that Robert Maxwell Holdings, one of the private companies, will split equally with MGN up to £10m of any costs in connection with a claim brought against the empire by Banque Nationale de Paris over a lease at Worship Street in London.

The settlement does not cover outstanding litigation on a lease at Orbit House in London, and several insurance policies concerning Mr Maxwell.

New interest in Bermuda reinsurance

By Richard Lapper

AON Corporation, the Chicago-based insurance group, and CNA Insurance and Corporate Partners, an investment affiliate of Lazard Freres, are to launch a new Bermuda-based reinsurance company, underlining growing interest among international insurers in the island as a centre for reinsurance.

More than \$3bn of capital has been invested in Bermuda since June. Both SCOR, France's biggest reinsurer, and Centre Re, a subsidiary of Switzerland's Zurich Insurance, are planning ventures.

The new company will bring at least \$200m to Bermuda. Mr William Adams, group vice-president and chief operating officer of CNA's reinsurance, will act as interim chief executive. Initially the company will focus on property catastrophe reinsurance and other "niche opportunities".

EXCERPT FROM SKANDIA INSURANCE COMPANY LTD. 8TH INTERIM REPORT 1993:

SKANDIA SHOWS STRONG IMPROVEMENT IN RESULTS

The management operating result, which includes changes in the surplus values of assets, totalled MSEK 1,612 (-636). The operating result totalled MSEK 734 (-344), and the insurance result amounted to MSEK 241 (195).

In the investment operations, direct yield rose by 4 per cent. Changes in the values of assets are strongly positive. Property values have continued to decline, though at a slower rate than a year ago. The market value of investment assets amounted to MSEK 51,442 on June 30th, compared with MSEK 44,778 at year-end 1992.

Net asset value on June 30th totalled MSEK 13,188 (11,375 at year-end 1992), or SEK 172 (148) per share. The solvency margin was 60 per cent (51 per cent at year-end 1992). As of mid-August, net asset value had risen by an additional approx. MSEK 1,000 to MSEK 14,200, or SEK 185 per share, as a result of continued growth in the value of assets and changes in currency exchange rates. This entails an increase of SEK 37 per share since year-end 1992.

Premium income has risen by 23 per cent to MSEK 21,381.

RESULTS

Gross premium income rose by slightly more than 23 per cent to MSEK 21,381 (17,329). Changes in exchange rates account for 19 percentage points of this increase in Swedish kronor. Risk premiums have decreased and now total MSEK 10,751 (10,965).

The management operating result has improved sharply and amounts to MSEK 1,612 (-636). In addition to a good insurance result, this includes a strong growth in the market values of investment assets. Realized changes in value during

the period amounted to MSEK 1,049 (-271), while additional, unrealized, changes in value totalled MSEK 804 (-376).

The operating result has improved significantly and amounts to MSEK 734 (-344). Amortization of goodwill accounts for MSEK 101 (99) of this total.

The insurance result has improved and amounts to MSEK 241 (195). The insurance result for the full year 1992 was negative, at MSEK -574.

The net combined ratio for non-life insurance, i.e., costs for claims,

sales and administration in relation to premiums earned for own account, was 113 (113) per cent. For the full-year 1992 the combined ratio was 118. The insurance result in relation to net premium income was 2.2 (1.8) per cent.

As a result of developments in the capital markets, the interest rates for investment income applicable to the insurance operations have been reduced. This affects comparisons between 1992 and 1993. If the previous interest rates had been applied, the reported insurance result would have been MSEK 200 higher, i.e., approximately MSEK 450.

Investment income applicable to the insurance operations during the period amounted to MSEK 2,017 (1,715) and thus rose, even though the allocated interest rates were lower. This is primarily the result of changes in exchange rates.

NAME-CHANGE

Skandia Group Insurance Company Ltd., which is the publicly listed parent company of the Skandia group, changed its name to Skandia Insurance Company Ltd. (Skandia), effective July 1st, 1993.

SUMMARY OF RESULTS

| | 1993 | 1992 | 1992 |
|---|---------|---------|--------|
| | in MSEK | in MSEK | in SEK |
| Gross premium income | 21,381 | 17,329 | 574 |
| Change in surplus values of life funds | 212 | 84 | 272 |
| Investment operations, net | 1,659 | -417 | -1,018 |
| Financial services | 2,312 | -138 | -1,320 |
| Discontinued business | -190 | 39 | -206 |
| Joint-group expenses | -435 | -537 | -1,120 |
| Management operating result | 1,612 | -636 | -3,736 |
| Of which, changes in surplus values of assets | 878 | -292 | -1,186 |
| Operating result | 734 | -344 | -2,850 |
| Extraordinary items | -97 | 4 | -90 |
| Minority interests | -99 | 5 | -10 |
| Fund and deferred taxes | -180 | 34 | -861 |
| Result for the period | 368 | -301 | -2,369 |

Notes of the interim statement are being mailed to shareholders and will be available from 6 September 1993 at Company Announcements Office, The London Stock Exchange, Capital Gains Entrance, London EC2 1HP



Skandia

S-103 50 Stockholm Phone +46-8-736 10 00

NOTICE OF REDEMPTION TO THE HOLDERS OF

CELLULAR, INC.
U.S. \$40,000,0008% Convertible Subordinated Debentures Due 2000
CUSIP Number 151163 AB 8

NOTICE IS HEREBY GIVEN pursuant to the provisions of Article Eleven of the Indenture dated as of May 1, 1990 (the "Indenture") between Cellular, Inc. (the "Issuer") and The Bank of New York, as Trustee, that the Issuer hereby calls for redemption all of its 8% Convertible Subordinated Debentures Due 2000 (the "Debentures") at the redemption price of 103% of the principal amount thereof (the "Redemption Price"), together with accrued interest to the date of redemption. The date of redemption is October 8, 1993 (the "Redemption Date"). Capitalized terms used herein without definition have the meanings ascribed to such terms in the Indenture.

The Redemption Price will become due and payable on the Redemption Date. On and after the Redemption Date, interest on the Debentures will cease to accrue. Payment will be made upon presentation and surrender of the Debentures, together, in the case of Bearer Securities, with all Coupons appertaining thereto maturing after the Redemption Date.

The right to convert Debentures into Common Stock of the Issuer will terminate at 11:00 AM New York City time on the Redemption Date (the "Cut-Off Time"). The conversion price for the Debentures is \$14.95 per share of Common Stock of the Issuer.

Registered Debentures may be surrendered for payment of the Redemption Price together with accrued interest to the Redemption Date, or may be surrendered for conversion at or prior to the Cut-Off Time, at either of the following offices of The Bank of New York:

By Mail:

The Bank of New York
P.O. Box 11003
Church Street Station
Fiscal Agency-7E
New York, NY 10286

By Hand:

The Bank of New York
Corporate Trust Windows - Street Level
Attn: Fiscal Agency-7E
101 Barclay Street
New York, NY 10286

Bearer Debentures may be surrendered for payment of the Redemption Price together with accrued interest to the Redemption Date, or may be surrendered for conversion at or prior to the Cut-Off Time, at the offices set forth below:

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Cellular, Inc.

Under the provisions of applicable law the above-mentioned paying agents may be obligated under certain circumstances to withhold 31% of the Redemption Price and accrued interest from any holder who has failed to furnish the applicable paying agent with a valid taxpayer identification (Social Security) number and a certificate that such holder is not subject to withholding. In general, holders of Registered Debentures who wish to avoid the application of these provisions should submit a completed Form W-9 or Substitute Form W-9 when presenting their Debentures.

Ownership of the Issuer's Common Stock by non-U.S. citizens and certain foreign entities is limited by the Issuer's Articles of Incorporation and by the United States Communications Act of 1934, as amended (the "Communications Act"). To facilitate the Issuer's compliance with the Articles of Incorporation and the Communications Act, holders will be required to certify in the Notice of Conversion, among other things, whether the shares of Common Stock issuable in respect of such conversion will be owned of record or voted by non-U.S. citizens or certain foreign entities. The Issuer may refuse to honor any Notice of Conversion if the foreign status of the owner of Common Stock to be issued in respect thereof would cause the Issuer to be in violation of its Articles of Incorporation or the Communications Act.

"The CUSIP Number listed above is for information purposes only and neither Cellular, Inc. nor the above-mentioned banks shall have any responsibility as to its accuracy."

Dated: September 8, 1993

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- Lists addresses and contact details of key agencies in Moscow

Much of this information is simply unavailable elsewhere and will be of real practical everyday use to anyone intending to do business in Russia, as well as legal, financial, accounting and other advisors.

The Guide to Registering Companies in Moscow is available exclusively from Financial Izvestia - to order your copy, see below.

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Heinz surprises Wall St with rise in first quarter

By Karen Zagor in New York

H. J. HEINZ, the US food group, yesterday surprised Wall Street by posting improved earnings for the first quarter.

For the three months to July 28, Heinz posted net income of \$152.2m, or 19 cents a share. A year earlier the company had underlying earnings of \$143.8m, or 18 cents, before changes for accounting changes of \$133.6m, which reduced reported net income to \$10.2m, or 4 cents.

Sales edged slightly higher to \$1.56bn in the latest quarter from \$1.55bn a year ago.

On Wall Street yesterday, shares in Heinz rose 3/4 to \$37 3/4 from the close.

In recent weeks the stock price has slumped, reflecting investors' concern that the food industry might suffer from a price war similar to the battle which has depressed cigarette prices in the US.

Most analysts had expected Heinz to earn 57 cents a share in the latest quarter.

The Pittsburgh-based company said its pet food products posted volume gains in the latest quarter, as did its Ore-Ida food industry potatoes, especially in the UK, Italy, Spain and central Europe. However,

these gains were offset by volume declines in its StarKist tuna, Weight Watchers frozen food and Heinz grocery ketchup products.

Sales were lifted by a 1.3 per cent increase in prices in the latest quarter and by the acquisition of the Wattie's Limited business in New Zealand, which lifted sales 6.3 per cent.

The benefits of the Wattie's acquisition was offset by the impact of a stronger US dollar against most currencies.

Mr Tony O'Reilly, Heinz chief executive, said he was pleased with the latest results, given the current economic environment in the US and overseas.

In June, Heinz said it would take a \$192m pre-tax charge against fourth-quarter earnings to cover a number of cost-cutting measures including an 8 per cent workforce reduction and a cut in its UK operations.

Mr O'Reilly said the restructuring charge would hasten productivity improvements and concentrate a three-year rationalisation programme into 12 months.

But analysts saw the move as further evidence of the intense competition in the retail sector which is putting pressure on the big consumer products companies.

Tax credit helps JCI hold earnings for year

By Philip Gavett in Johannesburg

EXTERNAL factors in the form of favourable tax changes and a one-off dividend helped Johannesburg Consolidated Investments, the mining house, to record largely unchanged earnings in the year to June.

The dividend was maintained at 132 cents per share on attributable earnings of 288 cents per share, against 288 cents last time. Equity accounted earnings rose slightly to 384 cents from 388 cents.

Mr Pat Retief, chairman, reported that the trading level the group had experienced another difficult year. Pre-tax profit fell by 10 per cent to R416.7m (\$125m) from R468.8m.

A R21m tax credit, however, boosted attributable earnings which, at R433.2m, were only marginally lower than 1992's R439.4m. Earnings also included a liquidation dividend from DAB Investments of about R22m.

Equity accounted earnings rose to R582.4m from R571.9m, largely as a result of a R28m benefit from an adjustment to deferred tax provisions.

For the second year in succession the portion of JCI's earnings derived from mining

fell - to 36.4 per cent, or R12.1m, of the total from 42.4 per cent, or R26.2m.

The group again earned more from its industrial and property interests which are mostly unmanaged. They contributed 39.7 per cent of earnings, or R231.7m against R259.3m last time. Most of the balance of income was in the form of fee income.

Mr Retief said the contribution from platinum - JCI controls Rustenburg Platinum, the world's largest producer - had fallen for the third year in succession. It contributed R85.4m, or 14.7 per cent of earnings.

The gold division did well to more than double its contribution, while income from diamonds, mostly trading interests, rose. Mr Retief said coal, in which the group has invested more than R500m in recent years, continued to be a "major disappointment".

On the industrial side, CML, the ferrochrome producer, was hardest hit by recessionary conditions and made a substantial loss. Motor group Toyota also had a difficult year.

Best performances came from publishing group Argus, South African Breweries, and the Premier Group in particular, where earnings rose by 18 per cent.

Canadian groups loosen family ties

Bernard Simon looks at empires parting with corporate treasures

FACING each other across Phillips Square in downtown Montreal are the flagship branches of two of Canada's most venerable retailers: The Hudson's Bay Company department store and Henry Birks & Sons, fine jewellers.

Birks and The Bay were for many years among the country's best-known family businesses. Montreal's Bay upper-class Birks family had presided over the jewellery chain for 114 years. The Bay, whose roots go back to the 17th century fur trade, was 65 per cent owned by Mr Ken Thomson, son of Lord Thomson of Fleet, the publishing magnate.

However, both companies have recently loosened their family ties. Last November, Mr Thomson sold more than half his Hudson's Bay shares to public investors for C\$540m (US\$410m), leaving him with only a 25 per cent stake.

Birks, strapped for cash and under court protection from its creditors, was rescued earlier this year by Borgosessa, the Italian luxury goods group.

The recession has been hard on families that have long dominated Canada's business landscape. One after another, they have been forced to part with some or all of their corporate treasures. Some empires have all but disappeared.

A group of international banks has ousted Paul, Albert and Ralph Reichmann from the helm of Olympia & York, the property developer which filed for bankruptcy protection last year. O&Y is now being gradually dismantled.

The empire controlled by the Toronto branch of the Broun family has fallen victim to

the plunge in North American property values.

Brothers Peter and Edward Bronfman have pruned their corporate tree in the past six months. They have sheared away about C\$4bn worth of assets, and stand to lose control of Trisee, North America's biggest publicly-traded property developer, under a debt-relief plan filed in early August.

Edward Bronfman has substantially reduced his interest in key holding companies.

The Southern family has relinquished control of Canada's biggest newspaper chain. Failure to control labour costs

of McCain Foods, the international potato-chip and frozen-food group based in rural New Brunswick.

The break-up of so many family empires has far-reaching implications for Canadian business. Some of the country's biggest companies now find themselves without a controlling shareholder.

The break-up of so many family empires has far-reaching implications for Canadian business. Some of the country's biggest companies now find themselves without a controlling shareholder.

and weak management pushed Southern into losses of more than C\$400m in the past two years. The company is now controlled by Mr Conrad Black, proprietor of the UK's Telegraph group, and by Power Corporation of Montreal.

The Steinberg supermarket chain, once Quebec's biggest and most innovative food retailer, has disappeared. It was weakened by slipping market share, high labour costs and dissension within the founding family after the death of patriarch Mr Sam Steinberg.

Even among the surviving family businesses, some have shrunk, while others are financially weakened or riven by discord. A struggle surfaced last month between Wallace and Harrison McCain over con-

rol of McCain Foods, the international potato-chip and frozen-food group based in rural New Brunswick.

The break-up of so many family empires has far-reaching implications for Canadian business. Some of the country's biggest companies now find themselves without a controlling shareholder.

Canadians, according to Forbes magazine, are Mr Thomson (who still controls an international publishing, travel and property empire) and the secretive Irving brothers, James, Arthur and John, whose fortune centres on oil, gas and forest products in Canada's Atlantic provinces.

The Bata shoe empire remains intact, as does the food, supermarket and forestry group controlled by Mr Galen Weston and his family. Mr Conrad Black's wealth has grown appreciably since he bought control of the UK's Telegraph group in 1985. His stake in Hollinger, the company which holds his publishing interests, is currently worth about C\$242m.

On balance however, family money carries less clout than it used to. Mr Jim Muir, director of research at Richardson Greenshields, a (family-owned) Toronto securities firm, notes that much of the power in Canadian business has shifted to professional money managers at pension funds, mutual funds and portfolio management companies.

Under pressure from these institutional investors, the old practice of shuffling boards of directors with the controlling shareholder's family and friends is gradually waning.

The shift of power is also evident in more subtle ways. The Globe & Mail and the Financial Post have dropped their social gossip columns. Could there be a more telling sign that the influence of the monied families which used to dominate these columns, and the public's interest in them, is ebbing?

NEWS DIGEST

Laurentian Bank improves 2% to C\$10.4m

LAURENTIAN BANK reported third-quarter net profits of C\$10.4m (US\$7.8m), up 2 per cent from a year earlier, and for the nine months C\$26.1m, down 9 per cent, writes Robert Gibbons in Montreal.

Earnings per share in the latest quarter were 46 cents against 53 cents, and in the nine months C\$1.22 against \$1.53. The average number of shares outstanding was 18m against 15.5m, due to expansion and acquisitions.

The bank is the fastest-growing affiliate of the Laurentian Group, now being merged with the big Desjardins financial services group.

Control of the bank will be held through a central Desjardins-Laurentian holding company.

Rio Algom sells potash division

RIO ALGOM, the former uranium producer now concentrating on copper and base metals, has sold the potash division with mines in Saskatchewan and New Brunswick to Potash Corp of Saskatchewan

for C\$160m (US\$120m), plus working capital, writes Robert Gibbons. Rio also retains a royalty interest.

PCS, Canada's biggest potash producer, will take over a workforce of 440 miners.

The potash division contributed 12 per cent of Rio Algom's operating profit in the first half of this year. Potash prices have been volatile internationally partly because of big swings in Chinese demand.

Rio plans to use the proceeds to repay debt and expand its base metals activities in North and South America, including development of the Cerro Colorado copper deposit in Chile.

Rothschild sets up Argentine unit

NM Rothschild, the merchant bank, said yesterday that it had formed an investment advisory company in Argentina in conjunction with the Chilean bank, Banco BICE, writes Stephen Fidler, Latin America Editor.

Rothschild said the new company, Bicosconsult Argentina, was being established to pro-

vide corporate finance, privatization, project finance and other advisory services to Argentine and multinational companies.

Southwestern Bell to shed 1,500 jobs

SOUTHWESTERN Bell Telephone said its previously announced restructuring plan will result in the elimination of about 1,500 management jobs over the next 18 to 24 months, AP-DJ reports from Dallas.

The company currently employs about 12,800 people in such positions.

Northern Telecom cuts workforce

NORTHERN Telecom, the equipment manufacturing affiliate of BCE of Canada, has begun reducing its Canadian operations as part of a plan to reduce the present 58,000 payroll by 9 per cent over the next 18 months, writes Robert Gibbons.

Nearly 800 jobs will go with the shutdown of one plant in

Deutsche Bank chairman's warning

DEUTSCHE Bank's chairman, Mr Hilmar Kopper, said German banks may have a tougher time in the second half than they had in the first six months of this year, Reuters reports from Paris.

"Traditionally, economic crises hit the banking sector with a six to nine-month delay and I'm not sure German banks will be able to repeat in the second half of this year their good performance of the first," he told the French daily newspaper Les Echos.

IN THE UNITED STATES BANKRUPTCY COURT
For the District of Delaware

Chapter 11
Case No. 93-582
Through 93-583

Debtor:
A.M. INTERNATIONAL, INC.
ACROSSGRAPH MULTIGRAPH CORPORATION.
Debtors.

Creditors and business names currently or previously associated with debtors:

*A.M. Multigraphics
*A.M. Graphics
*A.M. Shelden
*A.M. Schuler
*A.M. Wenberg
*A.M.A.P.
*A.M. Vantage
*A.M. Burning
*A.M. International Leasing Corp.

*Bruning Computer Graphics
*Harris Graphics
*Harris & Harris Press Division
*Harris Press Division
*Harris Graphics Electronic Operation
*Harris International Division
*Custom-Bit
*Subly

ORDER SCHEDULING CONFIRMATION HEARING

Upon consideration of the above-captioned debtors' (the "Debtors"), as debtors-in-process, application for an Order scheduling a confirmation hearing on the Debtors' First Amended Plan of Reorganization; and the Court having approved the Debtors' Second Amended Disclosure Statement filed Pursuant to Section 1125 of the Bankruptcy Code by Order dated August 26, 1993; it is hereby

ORDERED, that a confirmation hearing will be held on September 29, 1993 at 9:30 a.m. in the United States Bankruptcy Court for the District of Delaware (the "Bankruptcy Court"), 844 King Street, Wilmington, Delaware; and it is further

ORDERED, that any objection to confirmation of the Debtors' First Amended Plan of Reorganization must be made in writing and filed with the Bankruptcy Court with proof of service and served upon the following parties on or before 4:30 p.m. on September 24, 1993:

YOUNG, CONAWAY, STANGATH & TAYLOR
150 East 53rd Street
P.O. Box 301
Wilmington, DE 19899-0301

Attn: James L. Patten, Jr., Esq.
WACHTEL, LITTON, HOBBS & KATZ
1701 and Orange Streets
New York, NY 10017

Attn: Richard D. Feinberg, Esq.
MCNEIL, JAMES, HITCHENS & WILLIAMS
222 Delaware Avenue
Wilmington, DE 19899

Attn: Joanne B. Wells, Esq.

And it is further

ORDERED, that unless an objection is timely filed and served it may not be considered by the Court at the Confirmation Hearing.

Dated: Wilmington, Delaware
August 26, 1993

Copies of the Plan and Disclosure Statement may be obtained upon written request from: A.M. International, Inc., Corporate Relations Dept., 1800 West Central Road, Mt. Prospect, IL 60056.

The Honorable Helen S. Belski
United States Bankruptcy Court

DO YOU WANT TO KNOW A SECRET?
The U.S. Gann Seminar will show you how the markets REALLY work. The amazing trading techniques of the legendary W.D. Gann can increase your profits and contain your losses. How? That's the secret. Ring 061 474 0080 to book your FREE place.

Trans-Western Exploration Finance N.V.

Convertible Subordinated
Secured Notes
Due April 1, 1994 and
9.00%

Convertible Subordinated
Secured Debentures
Due March 1, 1997

NOTICE IS HEREBY GIVEN to the holders of the above referenced Notes and Debentures issued by Trans-Western Exploration Finance N.V. (the "Company") as a final distribution for Class 9 claims under the joint plan of reorganization of Trans-Western Exploration, Inc. and Trans-Western Production, Inc. in their bankruptcy proceeding in United States Bankruptcy Court for the Northern District of Texas, Dallas Division, Case Nos. 385-31045-F-11 and 385-32306-F-11. The full amount of such distribution has been applied by the Trustee to pay its outstanding fees and expenses, including reasonable attorney's fees and expenses, in connection with the notes and debentures which exceed the amount of such distribution. The indentures for both the notes and the debentures provide that any monies collected by the Trustee shall first be applied to pay all fees and expenses owed to the Trustee under the indentures prior to the payment of any amounts to the holders and that the Trustee has a lien on such funds prior to the holders to secure payments of amounts owed to it. Accordingly, no funds are available from such distribution to make any payments to the holders of the notes or the debentures.

Notarized Bank of Texas, N.A.
Trustee
(Successor Trustee to
First National Bank in Dallas)
Publication Date: August 18, 1993

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AUD\$ 31.0M Working Capital Facility

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MOSCOW: tel: +70-95 149 5494, fax: +70-95 149 5600

For more information or other locations please contact WORLD-WIDE BUSINESS CENTRES NETWORK Sales offices:

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tel: +41-1 219 82 82, fax: +41-1 219 82 19

AMERICA, Madison Avenue, Suite 1806,
New York 10022, tel: +1-212 605 02 00, fax: +1-212 308 98 34

Invitation To Submit Bids

For The Purchase of Shares of
MISR FREE SHOPS CO.

■ As part of privatization program of Egyptian Government, THE HOUSING, TOURISM AND CINEMA COMPANY (An Egyptian Joint Stock Holding Company) offers for sale majority interest (at least 60%) of its wholly owned affiliate MISR FREE SHOPS CO. to any one or group of investors (CONSORTIUM)

■ MISR FREE SHOPS is an affiliated Egyptian Joint Stock Company subject to law 203 of 1991. The Company is engaged in the set-up and management of Free Shops and Stores. The Company manages 26 outlet and 17 warehouse located throughout Egypt, and owns a large fleet of various transport vehicles.

■ MISR FREE SHOPS Company is profitable, and has no long-term loans.

■ Tender Documents including the Information Memorandum (describing all aspects of the company's financial, technical, commercial, and administrative) may be obtained for U.S.\$ 1000 or L.E. 3500 from the Financial Advisor.

BANQUE DU CAIRE
General manager
Trust Department
30 Rushdy St. - Abdin - Cairo
EGYPT
Tel: 3904554 / 3901979
Fax: 3930854 / 3908992

■ Bidders interested in the purchase of shares of MISR FREE SHOPS COMPANY should address their bids to BANQUE DU CAIRE to the above address in sealed envelopes.

■ Bids will be accepted until noon on Thursday, October 14, 1993, the date set for the session for opening the Bids.

US\$125,000,000
First Chicago Corporation
Floating Rate Subordinated Capital Notes Due December 1996
Notice is hereby given that the Rate of Interest has been fixed at 3.375% and that the interest payable on the relevant Interest Payment Date, December 8, 1993 against Coupon No. 28 in respect of US\$100,000 nominal of the Notes will be US\$53.13.

September 8, 1993, London
By: Citibank, N.A., (Issuer Services), Agent Bank **CITIBANK**

Bank of Ireland
U.S. \$300,000,000
Undated Variable Rate Notes
Notice is hereby given that the Rate of Interest has been fixed at 4.1875% and that the interest payable on the relevant Interest Payment Date, December 8, 1993 against Coupon No. 17 in respect of US\$100,000 nominal of the Notes will be US\$1,098.51.

September 8, 1993, London
By: Citibank, N.A., (Issuer Services), Agent Bank **CITIBANK**

Johannesburg Consolidated Investment Company, Limited

(Incorporated in the Republic of South Africa - Reg. No. 01/00429/06)

Highlights from the Consolidated Financial Statements for the year ended 30 June 1993 (Unaudited)

| | 1993 Rm | 1992 Rm |
|--|-----------|-----------|
| Profit before taxation | 413.7 | 463.8 |
| Attributable earnings | 433.2 | 439.4 |
| Share of retained earnings of associated companies | 123.3 | 132.5 |
| Equity accounted earnings | 556.5 | 571.9 |
| Ordinary dividends | 195.3 | 195.0 |
| Earnings per share | | |
| - Attributable earnings | 283 cents | 298 cents |
| - Equity accounted earnings | 354 cents | 388 cents |

The annual report and Chairman's review will be posted to members on or about 23 September 1993.
A Final Dividend (No. 135) of 90 cents per share has been declared payable to shareholders registered on 24 September 1993. Date of payment will be 25 October 1993. (Currency conversion date 4 October 1993.)
Holders of share warrants to bearer should attend to the terms of a notice to be published on or about 6 October 1993.
8 September 1993

The full text of the financial statements will be posted to shareholders and copies can be obtained from the London Secretaries, Johannesburg Consolidated Investment Company (London), Limited, Theobald House, 3-4 Holborn Circus, London EC1N 2BB.

This announcement appears as a matter of record only.



N.V. Koninklijke Nederlandse Vliegtuigenfabriek Fokker
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working capital facility

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ABN AMRO Bank N.V.
Barclays Bank Plc
Commerzbank (Nederland) N.V.
Deutsche Bank de Bary N.V.
NatWest Markets
Union Bank of Switzerland

Agent

ABN-AMRO Bank N.V.

August 1993

This announcement appears as a matter of record only.

Initial Public Offering

MMRL

\$40,000,000
Morrison Middlefield Resources Limited

4,000,000 Units
each consisting of one Common Share
and one Common share Purchase warrant

Price: \$10.00 per Unit

RBC Dominion Securities Inc. Burns Fry Limited
McLean McCarthy Inc. ScotiaMcLeod Inc. Wood Gundy Inc.
Bunting Warburg Inc. Middlefield International Limited

August 1993

INTERNATIONAL COMPANIES AND FINANCE

First-half advance at Citic Pacific

By Simon Davies
in Hong Kong

CITIC PACIFIC, the Hong Kong-listed arm of Beijing's China International Trust and Investment Corporation, yesterday announced a steep rise in first-half profits and an increase in the interim dividend.

Net profit for the six months ended June advanced by 58 per cent to HK\$392.3m (US\$108.8m) from HK\$248.5m a year earlier. The interim dividend is going up from 8.2 cents a share to 10 cents.

The results included a

maiden contribution from the company's 12 per cent stake in Hong Kong Telecommunications purchased from China International in January for HK\$10.4bn.

The purchase was funded through a share placement. The rise in half-year earnings per share was therefore limited to 22 per cent, to 47.8 cents.

Operating profit more than doubled to HK\$503m, primarily due to a strong performance from the trading operations at Dah Chong Hong (DCH).

The company almost doubled car sales in China, although Chinese austerity measures are

likely to hit the current six months.

DCH is the one investment to which Citic has added significant value, with more than half of its new car sales now going to China. In addition, the group has expanded DCH's trading and retail businesses taken a 51 per cent stake in a children's food factory in Shanghai.

Contributions from associates rose from HK\$314m to HK\$485m, primarily due to Hong Kong Telecom, and to the performance of Dragonair, which has seen earnings soar

on the back of sharply increased business air traffic between Hong Kong and China.

This was partly offset by the 46 per cent drop in earnings from Citic's 12.5 per cent stake in Cathay Pacific.

Citic is negotiating to buy a 25 per cent stake in a power plant in Shanghai to add to its power project investments in Henan and Jiangsu provinces.

It has also taken 25 per cent of a joint venture with Japanese manufacturer Isuzu to assemble trucks in China's most populous province, Sichuan.

Swedbank package to raise SKr3.9bn

By Christopher Brown-Humes
in Stockholm

SWEDBANK, the newly merged Swedish savings bank group, yesterday unveiled a SKr3.9bn (\$488m) package of measures to help it weather the crisis in Sweden's financial sector without calling on government support.

The bank is strengthening its capital base by issuing SKr1.9bn of perpetual subordinated debt to international investors, mainly in Japan and the US. Pricing is not being disclosed.

It plans to raise a further SKr2.3bn by selling a 50 per cent stake in two wholly-owned subsidiaries to a group of 90 affiliated savings banks.

The bank says the moves would have increased its capital adequacy ratio at June 30 by about 1.7 percentage points to 10.5 per cent, well above the 8 per cent international minimum. This will go a long way to enabling it to survive without state support, although, like other Swedish banks, it remains under pressure from heavy credit losses.

The bank hopes it will be able to withdraw its request for state aid later in the year, when it expects to announce new measures to strengthen its capital.

It applied for support at the start of the year but is now hoping to bail itself out of trouble following similar moves by two other banks, Skandinaviska Enskilda Banken and Foreningsbanken.

First-half results from Swedbank confirmed evidence of a recovery in the Swedish financial sector, which has been battered by two years of heavy losses caused mainly by collapsing real estate values.

The bank's operating deficit fell to SKr1.59bn from SKr5.85bn after costs fell by 15 per cent and credit losses shrank to SKr5.80bn from SKr9.25bn.

Commonwealth Bank lifts profits 8%

By Nikkai Tait in Sydney

COMMONWEALTH Bank of Australia, the partially privatised, Sydney-based institution, yesterday reported an 8.4 per cent rise in after-tax profits to A\$443.1m (US\$296.4m) for the 12 months ended June.

Profit before restructuring costs and general provision transfers was A\$492.5m.

The figures, at the upper end of analysts' expectations, pave the way for the sale of a further 19 per cent equity interest

in the bank by the federal government. This move, already well-flagged, will reduce the authorities' holding in CBA from 70 per cent to 51 per cent.

Yesterday, Mr Tim Beasley, CBA chairman, said that he expected details of the sale to be released "in a matter of a few days". The sale is expected to raise around A\$1.5bn.

Operating profit after tax but before outside equity interests and abnormal items rose to A\$589.5m from A\$415.5m, with the core banking operations

contributing A\$492.6m, against A\$385.3m. The bad debt charge fell to A\$53.7m from A\$84.3m, which CBA attributed to "concerted action... to manage non-performing loans, as well as the benefits of the recovery in the equities market".

However, at the earnings per share level, there was more modest progress, with CBA reporting 51.7 cents, against 51.5 cents last time.

Mr David Murray, managing director, admitted that there was a "continuing subdued

economic environment" with increased competition among lenders in a sluggish domestic market.

But he said that CBA's relatively healthy figures reflected tighter control on costs, with operating expenses falling by 8 per cent.

The bank's risk-weighted capital ratio improved from 8.94 per cent to 10.66 per cent. Total assets rose to A\$91bn from A\$88.3bn. CBA shares rose 35 cents on news of the results, to A\$9.95.

First Pacific posts strong interim growth

By Simon Davies

FIRST Pacific Company, the Hong Kong-based distributor to telecommunications conglomerate, yesterday reported strong first-half profits and an increase in the interim dividend.

Net profits before extraordinary items, but after preference share and convertible share dividends, for the first six months of 1993 were HK\$282.3m (US\$83.58m), up 69 per cent from HK\$169.1m.

The company is stepping up its interim dividend by 43 per cent to 6 cents a share.

The group's Dutch subsidiary Hagemeyer continued to show strong growth, although its contribution was hit by negative foreign exchange movements. In addition, Philippines-based Metro-Drug, and Australian computer company Tech Pacific, significant loss-makers in 1991, continued to recover.

Pacific Link, one of Hong Kong's three top cellular phone operators, further grew its subscriber base. However, Pacific TeleLink, which is building up a CT2 phone and pager network lost money, in line with group projections.

The group's property arm benefited from its acquisition of security company Quadforce, and from further investment property sales. Banking operations have been strengthened by the link-up with Mainland Government partners.

First Pacific's managing director Mr Manuel Panglisan, said: "While it is unlikely that the growth rate in the second half will match what was achieved during the first half of 1993, I expect to be able to report significantly improved results for the full year."

Fujitsu cuts R&D to save costs

By Michio Nakamoto
in Tokyo

FUJITSU, the Japanese electronics and telecommunications company, is planning to cut the number of research and development projects by about 20 per cent in an attempt to reduce costs and focus its R&D efforts better.

The decision is part of a wide-ranging exercise in reducing costs and will involve all leading business fields - from computers and telecommunications to semiconductors - in all parts of the world, Fujitsu said.

In the current business year, the company, which owns ICL, the UK-based computer company, is aiming to reduce R&D costs by about ¥100m (\$943.3m) from an initially planned ¥295m.

Additionally, Fujitsu plans to cut capital expenditure. It is targeting a reduction of up to ¥100bn in capital expenditure.

It hopes to reduce distribution and inventory costs as well. Last year, it was able to cut inventory costs by as much as ¥100m by shortening the shelf life of inventories, but additional reductions have been difficult, the company said.

Fujitsu said earlier this year that it was looking to reduce the number of employees on its payroll by 6,000 over the next two years through natural wastage.

Fujitsu, which is Japan's largest computer company and a leading manufacturer of telecommunications equipment and semiconductors, has suffered heavily amid the downturn in capital expenditure and consumer spending in Japan.

The company has also been hit by the trend away from large mainframe computers, which have been a significant profit earner for the company, to networks of personal computers.

In the year to March, Fujitsu reported a loss of ¥8.7bn. It expects restructuring efforts will help it return to profit in the current year.

AN Australian company that successfully bid for a licence to build and operate a casino in Melbourne aims to raise A\$246m (US\$164.00m) through an initial public offering of shares, AP-DJ reports from Melbourne.

The licence was awarded to a consortium of companies, including Foster's Brewing and property developer Hudson Conaway, following a bid earlier this week of A\$700m to the Victorian state government.

The consortium has formed Crown Casino which is to take a stock market listing late this year or early 1994 to pay for part of their successful bid.

Investment institutions and private shareholders will be offered A\$246m of shares, or 60 per cent of Crown, and the three-member consortium will take up the rest, giving the company an issued capital of A\$410m.

Ahold ahead despite dip in contribution from US

By Ronald van de Krol
in Amsterdam

AHOLD, the Dutch-based food retailer, increased net profit by 11.4 per cent to F178.3m (\$41.3m) in the second quarter of 1993, with higher results in the Netherlands and Europe compensating for slightly lower results in the US.

The second-quarter increase, which followed a 13 per cent rise in the first quarter, takes net profit for the first half to F172.4m.

Group sales in the second quarter rose by nearly 30 per cent to F16.3bn, largely due to the first-time consolidation of Schuitens, a Dutch food wholesaler which is majority-owned by Ahold, and to acquisitions in the Netherlands and Portugal. If these factors are excluded, the rise in sales totalled 8.3 per cent.

Ahold, which generates about half of its sales through supermarket chains in the eastern US, said US operating profit fell slightly to \$38.9m, from \$41.5m in the second quarter of 1992.

Three of its US chains produced higher operating results, but its First National supermarket chain posted lower profits.

In the Netherlands, operating profit registered a strong 43.4 per cent rise to F18.9m, partly due to new consolidations. But even after adjusting for this factor, operating profit still showed an increase of 23.5 per cent.

European results swung into an operating profit of F15.1m from a loss of F13.5m. Ahold attributed the improvement almost entirely to its rapid expansion in Portugal. The Dutch group continues to post start-up losses in the Czech Republic.

AN Australian company that successfully bid for a licence to build and operate a casino in Melbourne aims to raise A\$246m (US\$164.00m) through an initial public offering of shares, AP-DJ reports from Melbourne.

The licence was awarded to a consortium of companies, including Foster's Brewing and property developer Hudson Conaway, following a bid earlier this week of A\$700m to the Victorian state government.

The consortium has formed Crown Casino which is to take a stock market listing late this year or early 1994 to pay for part of their successful bid.

Investment institutions and private shareholders will be offered A\$246m of shares, or 60 per cent of Crown, and the three-member consortium will take up the rest, giving the company an issued capital of A\$410m.

Skanska property sales net SKr1bn

By Christopher Brown-Humes
in Stockholm

SKANSKA, the Swedish construction and real estate group, has concluded a series of property deals worth more than SKr2.5bn (\$318m) with the Swedish National Pension Insurance Fund.

The agreement will net the company a SKr1bn capital gain at a time when its performance has been hit by the downturn in the Swedish construction market and big property write-downs.

Skanska is selling 20 commercial and residential properties in the Stockholm area to the fund for SKr2.2bn. It is also buying a number of industrial and office buildings in Stockholm and Malmö, and a residential area in Malmö for SKr300,000.

Mr Melker Schörling, Skanska chief executive, said the deal would cut debt and create room for new investments.

Proceeds will offset the substantial write-downs on foreign property engagements which the company is expected to make in the second half of the year.

"The deal is a positive indication that the real estate market in Sweden is starting to recover," said Mr Mats Mared,

Skanska vice-president with responsibility for real estate.

● TRYGG-HANSA, the leading Swedish insurance group, yesterday applied to the government for a charter to establish a bank.

It said the move would enable it to compete more effectively in the market for individual pensions after a change in tax rules at the end of the year.

The new bank to be named Trygg-Banken, will be 51 per cent owned by Trygg-Hansa Life and 49 per cent owned by Trygg-Hansa SPP.

It will acquire parts of the group's finance company,

Trygg Finans, which is primarily focused on small and medium-sized companies.

It will supplement this with a small securities business and by offering favourable interest rates to attract pension savings from individual customers.

● CULTOR, the Finnish foods group, reports eight-month profits after financial items of FM227m (\$39m), against FM153m last time. Renter reports from Helsinki. Net sales were FM4,068m, compared to FM3,823m. The company said operating profits for the period were FM495m. For the first eight months of 1992 they were FM427m.

NZ brewery overcomes difficulties

By Terry Hall in Wellington

DOMINION Breweries, the New Zealand brewer, reports an increase to NZ\$15.5m (US\$8.61m) from NZ\$13.8m in net profits for the year ended June.

The directors said it had been another difficult year, marked by tough competition and reduced consumer spending.

The company, previously known as Magnum Corporation, is controlled by a joint venture of Brierley Investments and Singapore and Dutch liquor interests. It has been undergoing an extensive restructuring after heavy losses on investments in 1991.

Dominion is planning further write-downs and provisions this year of NZ\$30.6m, following last year's total provisions of NZ\$264.3m.

It said that the tough trading climate looked like continuing.

The board reaffirmed that there would be no rapid return to acceptable levels of profitability due to the extent of the resources and investment needed to rebuild the group.

It said all business units were profitable with the exception of DB Hotels. There had been a significant improvement in earnings at Austotel, the Australian hotel arm.

Further asset disposals were expected and as a result borrowings would be further reduced.

The brewer's net debt last year fell to NZ\$396.3m from NZ\$516.5m.

PAN-HOLDING

Secured Anonymous - Luxembourg

As of August 31, 1993, the unconsolidated net asset value was USD 325,096,343.05, i.e. USD 991.08 per share of USD 200 par value. This represents a gain of 18.5% from the unconsolidated net asset value per share of USD 507.43 as at December 31, 1992. If one takes into account the dividend of USD 9.50 paid in 1993, the increase is 18.4%.

The consolidated net asset value per share amounted as of August 31, 1993, to USD 619.33.

ITOCORP CORPORATION

(C. Hall and Co. Limited)
ANNOUNCE THE FOLLOWING

It has been determined at a Board Meeting that the Interim Dividend for the year ended 30 June 1993 shall be paid to Shareholders of record as of 30th September 1993 and that the amount and time of payment thereof shall be decided at a Board Meeting to be held in the middle of November 1993.

Shareholders Bank Limited

WOOLWICH

- Building Society -

\$100,000,000
Floating rate notes
due 1996

Notice is hereby given that the notes will bear interest at 6.9875% per annum from 6 September 1993 to 6 December 1993. Interest payable on 6 December 1993 will amount to \$151.77 per \$100,000 note and \$1,517.77 per \$1,000,000 note.

Agent: Morgan Guaranty Trust Company
JPMorgan



The Kingdom of Denmark

US\$1,000,000,000
Floating rate notes 1997

Notice is hereby given that the notes will bear interest at 3.0625% per annum from 8 September 1993 to 8 December 1993. Interest payable on 8 December 1993 will amount to US\$7.74 per US\$1,000 note and US\$77.41 per US\$10,000 note and US\$774.13 per US\$100,000 note.

Agent: Morgan Guaranty Trust Company
JPMorgan

Carrefour

| (in FF millions) | First half 1993 | First half 1992 | % 1993/1992 |
|---------------------|-----------------|-----------------|-------------|
| Operating income | 1,098** | (4) | - |
| Non-recurring items | - | - | - |
| Group share | 1,663 | 277 | - |

(*) The restructuring costs incurred at Carrefour significantly lowered the Group's income in the first half of 1993.

(**) Non-recurring items include a capital gain realized on the sale of Carrefour's interest in Carrefour Distribution Investments and, a provision for clearing down hypermarket operations of Carrefour in Philadelphia.

1993 Outlook
For 1993 as a whole, consolidated sales are expected to increase by around 5%, while net income before non-recurring items should rise by approximately 20%.

Stream of issues lifts 1993 volume above last year's total

By Antonio Sharpe

A STREAM of new issues in the Eurobond market yesterday lifted volume this year above last year's record level. Total 1993 volume has reached \$271.6bn, according to IFR Securities Data, compared with \$269.8bn for the whole of 1992.

The Kingdom of Belgium launched its widely-expected D-Mark Eurobond issue and Cheung Kong, the flagship of Mr Li Ka-shing's Hong Kong business empire, made its Eurobond debut.

Meanwhile, the World Bank was putting the finishing touches to its global dollar offering for a launch at the start of trading in Tokyo.

The Bank is expected to raise \$1.25bn of 10-year bonds, priced to yield between 10 and 13 basis points over the yield on underlying US Treasuries.

Belgium's DMBN offering of 10-year bonds was well received, syndicate managers said. The bonds were priced to yield 16 basis points over the 6% per cent Bund due 2003, the lower end of the indicated range. When the bonds were freed to trade, the spread was unchanged.

Lead manager Morgan Stanley said Belgium's offering provided fresh liquidity at the long end of the D-Mark sector. Other 10-year Eurobond issues launched earlier in the year have risen well above par, which makes investors less inclined to trade in them.

The Belgium finance ministry said the 10-year maturity was chosen to tap demand for long-dated paper as well as to lengthen the maturity profile of Belgium's foreign debt.

INTERNATIONAL BONDS

Belgium is scheduled to launch a dollar-denominated Eurobond issue in the next month and may tap the Swiss franc sector early in 1994.

The other significant deal of the day was Cheung Kong's \$500m five-year issue, the first straight Eurobond by a Hong Kong corporate.

Lead manager Goldman Sachs said the offering established a benchmark for other Hong Kong companies wishing to raise funds internationally. "Cheung Kong's issue opens up a whole new market," it said.

The fact that investors were

willing to buy the issue despite its maturity in 1998, one year after the UK is due to hand Hong Kong back to China, bodes well for future issues by Hong Kong borrowers, it added.

Demand for Cheung Kong's bonds was such that they are likely to be priced to yield 82 or 83 basis points above the 4% per cent US Treasury due 1998, at the lower end of the indicated range. The issue is due to be priced today.

The aim of the issue is to expand Cheung Kong's investor base and to raise its profile internationally. Cheung Kong does not have a rating at present and any rating would be limited by Hong Kong's sovereign ceiling of A by Standard & Poor's and A3 by Moody's.

Late in the day, Citibank led a \$300m seven-year Eurobond for Telefonica de Argentina. The bonds, which carry a coupon of 5% per cent, were priced to yield 94 basis points over the 8% per cent US Treasury due 2000.

Venezuela is expected to tap the Eurobond market in the next few weeks with a \$300m two-year offering. The issue, via Goldman Sachs, is expected to be priced to yield between

250 and 300 basis points over the yield on US Treasuries.

Another late-comer was France Telecom, which raised \$200m through an offering of six-year bonds. Lead manager Swiss Bank Corp said the issue would refinance two Swiss franc deals which are due to mature in October. It added that the coupon of 4% per cent was the lowest for a straight bond since 1988.

Elsewhere, the European Investment Bank gave a significant boost to the Matador market, Spain's domestic bond market for foreign borrowers, with its Ptas40bn three-year offering, the largest Matador to date.

An official at the lead manager Banco Central Hispano said that the bonds were priced to yield 50 basis points below the yield on the underlying Spanish government bonds, a more generous margin than investors had been expecting.

In the sterling domestic market, Halifax Building Society raised \$100m through an issue of permanent interest-bearing shares (PIBS). The issue was priced to yield 150 basis points over the 8% per cent government bond. Spreads on PIBS have tightened substan-

tially in recent months, reflecting strong demand from investors for high-yielding instruments.

NEW INTERNATIONAL BOND ISSUES

| Borrower | Amount | Coupon | Price | Maturity | Yield | Spread | Book runner |
|---------------------------|--------|--------|----------|----------|-------|---------------------|---------------------------|
| US DOLLARS | | | | | | | |
| Chung King Finance Cayman | 300 | 6.00 | 102.25 | Sep 1998 | 0.4R | (4) (4) (4) (4) | Goldman Sachs Int. |
| Telefonica de Argentina | 100 | 0.375 | 98.51R | Oct 2000 | 1.0R | (4) (4) (4) (4) | Citibank Int'l |
| Charmour Corp. | 100 | 4.575 | 100R | Sep 1997 | 0.25R | (4) (4) (4) (4) | Yamashita Int'l (Europe) |
| Kaunert Int'l. Corp. (US) | 100 | 0.875 | 100 | Sep 1997 | 2.25 | (4) (4) (4) (4) | Swiss Bank Corp. |
| SEPTOR Int'l. Corp. (US) | 40 | 6.50 | 99.45R | Sep 2003 | 2.5 | (4) (4) (4) (4) | |
| EUROBONDS | | | | | | | |
| Kingdom of Belgium | 1bn | 6.25 | 98.53R | Oct 2003 | 2.5 | +10 (5) (4) (4) (4) | Morgan Stanley |
| UKB Bank (UK) (London) | 500 | 6.50 | 102.25 | Sep 2003 | 2.0 | (4) (4) (4) (4) | J.P. Morgan |
| Kaunert Int'l. Corp. (US) | 65 | 1.625 | 100 | Sep 1997 | 2.25 | (4) (4) (4) (4) | Nomura Bank (Deutsch) |
| EUROBONDS | | | | | | | |
| Harley Corp. (US) | 250 | 1.25 | 100 | Sep 1998 | 2.5 | (4) (4) (4) (4) | Dahwa Europe |
| Harley Corp. (US) | 100 | 4.50 | 98.55R | Jan 2004 | 2.0 | (4) (4) (4) (4) | Dahwa Europe |
| Harley Corp. (US) | 100 | 4.75 | 100.075R | Jan 2004 | 2.0 | (4) (4) (4) (4) | Dahwa Europe |
| Harley Corp. (US) | 100 | 4.50 | 100.200R | Dec 2000 | 1.875 | (4) (4) (4) (4) | Dahwa Europe |
| Polka Corp. (US) | 50 | 1.00 | 100 | Mar 1996 | 2.5 | (4) (4) (4) (4) | Nikko Merch. Bank (Japan) |
| EUROBONDS | | | | | | | |
| Euroland | 400 | 6.125 | 100.10R | Oct 2003 | 0.25R | +12 (5) (4) (4) (4) | Rabobank Nederland |
| Euroland | 300 | 6.375 | 99.45R | Oct 2003 | 0.25R | +12 (5) (4) (4) (4) | ABN AMRO Bank |
| EUROBONDS | | | | | | | |
| European Investment Bank | 400 | 6.50 | 101.31 | Sep 1996 | 1.375 | (4) (4) (4) (4) | Banco Central Hispano |
| EUROBONDS | | | | | | | |
| France Telecom | 300 | 4.125 | 102.25 | Oct 1998 | - | (4) (4) (4) (4) | Swiss Bank Corp. |
| France Telecom | 150 | 4.575 | 102.125 | Jan 1997 | - | (4) (4) (4) (4) | Nomura Bank (Deutsch) |
| France Telecom | 100 | 0.125 | 100 | Sep 1997 | - | (4) (4) (4) (4) | Yamashita Int'l (Europe) |
| France Telecom | 100 | 0.125 | 100 | Sep 1997 | - | (4) (4) (4) (4) | Yamashita Int'l (Europe) |
| France Telecom | 100 | 0.125 | 100 | Sep 1997 | - | (4) (4) (4) (4) | Yamashita Int'l (Europe) |

Final terms and non-callable unless stated. The yield spread (over relevant government bond) at launch is supplied by the lead manager. All figures are in millions of dollars unless stated. R: Bond re-offer price. Y: Bond yield. S: Bond spread. B: Bond book runner. C: Bond coupon. P: Bond price. M: Bond maturity. D: Bond day count convention. N: Bond notional. T: Bond tenor. L: Bond listing. O: Bond offering. U: Bond underwritten. V: Bond variable. W: Bond warrant. X: Bond exchange. Z: Bond zero. A: Bond at. B: Bond below. C: Bond call. D: Bond down. E: Bond end. F: Bond face. G: Bond good. H: Bond high. I: Bond in. J: Bond into. K: Bond keep. L: Bond low. M: Bond make. N: Bond new. O: Bond on. P: Bond over. Q: Bond out. R: Bond out. S: Bond out. T: Bond out. U: Bond out. V: Bond out. W: Bond out. X: Bond out. Y: Bond out. Z: Bond out. A: Bond at. B: Bond below. C: Bond call. D: Bond down. E: Bond end. F: Bond face. G: Bond good. H: Bond high. I: Bond in. J: Bond into. K: Bond keep. 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COMPANY NEWS: UK AND IRELAND

Lack of exceptionals behind Hillsdown fall

By Andrew Bolger

SHARES IN Hillsdown Holdings rose 7p to 172p yesterday, although the food group announced that pre-tax profit fell 17 per cent, from £74.8m to £62.3m, in the six months to June 30.

Hillsdown blamed the drop in profits on higher interest costs and said last year's figure had been flattered by exceptional profits. Sales of continuing operations increased by 10 per cent to £2.23bn, mainly because of the acquisition of a continental chilled salads business last year.

Sir John Nott, the former cabinet minister who took over as chairman in April, said the group's restructuring was expected to be completed

ahead of schedule and on budget, but would not produce early results.

The group expects to sell its eight remaining abattoirs and two meat plants by the end of the year, completing its withdrawal from the red meat slaughtering business.

More than half its property trading portfolio has been sold and the group expects to get out of this business more quickly and at better prices than initially expected.

Mr David Newton, chief executive, said reorganisation in the poultry business was almost complete, with the weekly output of chickens having been cut from 3.5m birds to 2m.

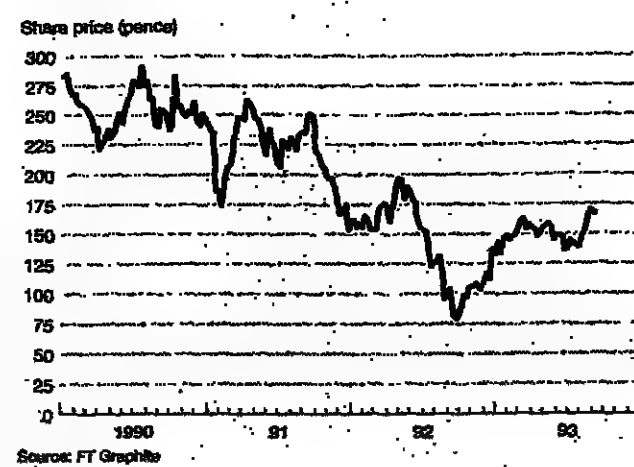
Mr Newton said Hillsdown had coped with the difficult

trading brought on by devaluation, which increased its raw material prices by up to 15 per cent. It still faced difficult trading conditions but he forecast higher operating margins from most divisions in the current half, as a result of having achieved higher prices and the restructuring.

The chief executive said the biggest disappointment in the first half was a weak performance by the European tea and beverage operations. Fierce competition for market share and a big jump in the costs of imported raw materials had reduced profitability.

The businesses were being merged under a new management team, which would bring small reorganisation costs this

Hillsdown Holdings



Source: FT Graphite

year but help performance in future years.

The non-foods division, which includes housebuilding and upholstered furniture operations, had seen few signs of improvements in its markets but several divestments had increased operating profits and

margin.

Under FRS 3, earnings per share fell to 5.1p (5.4p). The group, which has one of the highest yields in the market, has its interim at 2.5p and intends to maintain the full-year dividend at 8.5p.

See L2

Scholl dips to £11.7m midway

By Catherine Milton

HIGH marketing and development investment cost Scholl, the healthcare company, a dip in pre-tax profits to £11.7m in the six months to June 30, compared with last time's £13.7m flattered by £2.4m in higher investment and one-off gains.

Mr Neil Franchino, chief executive, said the company had so far outperformed rivals as recession swept continental Europe. "There is a problem and we can't stay above it for ever. We can't be any more optimistic than other people. I am terribly concerned about continental Europe even if we fare fairly well."

Turnover rose to £94.1m (£85.5m), with about 5 per cent of the gain attributable to currency movements and the rest to improvements in third party distribution sales, including a contract with Bristol Myers in Germany, and about 35 per cent growth in the Asia region, and 6 per cent in Australia.

The company made two acquisitions in the first half of 1992. The Scholl retail chain in Canada opened four additional stores bringing the total to 24, with three more planned by the year end. The Gerard House herbal remedies company increased distribution from about 1,800 to nearly 5,000 points of sale.

It bought Septron, the anti-septic wash brand, in June from Elf Sanofi for £71.5m (£14.7m) cash, plus taxes of £7.5m (£1m).

Scholl said results had been brought down at the half year by a change in the business mix. "We used to be in a situation where all profit was made in the first half. Last year the split was roughly 75 per cent in the first half and the remaining quarter in the second and this trend is likely to continue this year."

At halfway the company had £5m (£18.4m) in cash and borrowings of £6.7m (£5.8m). The board declared a maintained interim dividend of 2.5p out of earnings of 9.3p (11.3p).

CRH in £147m rights issue for expansion

By Tim Coone in Dublin

CRH, Dublin-based international construction and building materials group, announced yesterday a one-for-five rights issue to raise £147m (£135m) to finance acquisitions over the next two years. The size of the issue, at £2.80 per share, surprised analysts and the shares closed down 9p at 285p.

The announcement was made simultaneously with better-than-expected interim results showing an 11 per cent increase in pre-tax profits to £25.1m on turnover up 17 per cent to £264.7m for the six months to end-June. At the same time the company reported two further building material acquisitions in the US for £30m.

It is buying Pennys Supply, a building materials supplier in Pennsylvania, and Clements-Latham Concrete, a ready-mix concrete supplier in upstate New York.

They had combined sales of \$46m last year. Dublin analysts were surprised by the cash call, underwritten by UBS, given the small size of the acquisitions identified so far.

They have upgraded their forecasts, however, for the full year on the back of the interim result.

Mr John Conroy of NCB stockbrokers is predicting half-year earnings per share of 18p, in anticipation of a better second half result and "the two ops-enhancing acquisitions in the US".

Mr Jack Hayes, managing director for finance and development of the group, said "We think it is a good time to be buying now, and we want to be able to do so without overstretching ourselves".

He said CRH has spent some £260m on acquisitions over the past decade and a further £300m in capital investment, most of which has been financed from cash flow. Only £104m has been raised since 1984 in one rights issue and two placings.

Acquisitions totalling £100m are expected to be made this year, including the latest two in the US, and similar spending is anticipated in 1994.

Mr Hayes said that without a rights issue, group gearing could approach 100 per cent. "This could have acted as a constraint on new acquisitions. We want to keep our flexibility to be able to move fast", he said.

Gearing will fall from 60 per cent at June 30, to just below 50 per cent after the rights issue.

Earnings grew by 13 per cent to 6.98p (6.17p) in the half year, and an interim dividend of 2.34p (2.25p) is declared.

COMMENT

This call by CRH on a market which is not awash with surplus cash is a cheeky move by a group which has put in a good performance in comparison with its industry peers. But it looks as though investors will buy the explanation that CRH needs to finance a very aggressive acquisition programme to consolidate its diversified base in the US and European construction industries. With interest cover now almost half the level four years ago, some strengthening of the balance sheet was called for. But CRH will have to find the acquisitions quickly and deliver the earnings to reward its shareholders' faith. A p/e of 16 on forecast earnings of 18p this year indicates investor caution.

Pegasus sells rest of Stockforms

Pegasus Group, the USM-quoted software and stationary group, is selling the remaining 75 per cent of Stockforms to Delux Corporation's UK offshoot for not less than £5m.

Delux UK acquired 25 per cent of Stockforms for £1.7m in September last year and was granted an option to acquire the balance at any time between July 31 1993 and December 31 1994.

Peek declines to £2.1m but wins £6m Bangkok contract

By Catherine Milton

PEEK, the international traffic and field data systems company, has won a contract to install a £6m computerised system for the volatile drivers of Thailand's Bangkok.

Announcing pre-tax profits for the six months to June 30 of £2.07m (£2.81m) - down as a result of the loss on disposal of discontinued business - Mr Jim Sanger, finance director, said he was aware Bangkok drivers had threatened violence over the congestion.

"We believe congestion will be eased but we have made no contractual guarantees on the speed of traffic," he said.

"Over the last four or five years we have established ourselves as the number two in the traffic world and profits have been up over the last couple of years."

He stressed the need to move to larger contracts but "not to take on too many at a time".

Turnover on continuing activities was virtually flat at £39.1m with a £5.8m contribu-

tion from the acquisitions of Signal Control Company and Signal Maintenance Inc in March.

Operating profits dipped to £2.43m (£2.91m) as operating expenses rose on higher investment in the Hong Kong and German markets and in applied technology.

The company booked a loss of £244,000 on the sale of Navstar, a global positioning systems company, as the transport industry failed to respond quickly to the technology.

Peek received interest of £194,000 against payments of £92,000 last time as the company switched out of certificates of tax deposit following the settlement of a tax liability.

The company had borrowings of £1.88m at the half year stage against cash of £11.4m in the previous period as working capital in Holland increased and on the strength of the two acquisitions.

The board declared a maintained dividend of 1.08p out of earnings per share of 1.11p (1.74p).

AAF shares tumble after heavy loss from Blackburn business

SHARES IN AAF Industries

fell 51p to 77p as the modular buildings and alloy wheels group announced that "a very large loss" had been incurred in the first half in the group's system building business in Blackburn.

There would also be very large exceptional and non-recurring items as a result of the closure of the Blackburn operations and their transfer to Bransford in Yorkshire.

The results for the six months to June 30 were now expected to be delayed until October.

The shares recovered 5p to

close at 82p.

On July 7, AAF issued a profit warning for the six months to June 30. This also related to the Blackburn business and prompted a 66p share price plunge to 125p.

Only two months previously the group had made a £7.65m rights issue, which diluted the stake of W&A Investment Corporation, the South African consumer and industrial group, to 43.1 per cent.

Mr Alan Brown became chief operating officer of AAF at the time of the July warning and he said the decision to close

Blackburn was instigated by him.

As a result of the current difficulties in Blackburn, AAF needed additional working capital. W&A has guaranteed the provision of a £5.1m loan facility to AAF. This has been fully drawn. Further, W&A will provide an unsecured loan facility of £4m.

Mr Jeffrey Lieberman, W&A joint executive chairman and AAF non-executive chairman, said W&A was in no hurry to have the loan repaid. "We are acting as a white knight," he said.

Amstrad shares rise 2½p

By Paul Taylor

SHARES in Amstrad, the consumer electronics company run by Mr Alan Sugar, gained 2½p to 37½p yesterday amid reports that the group is negotiating to buy Dancell, the Danish mobile telephone manufacturer which is in payments suspension.

Bertelsmann Tidsende, the national newspaper, quoted Mr

Sugar as saying: "We are ready to buy. Whether the deal comes off depends now on the creditors." The newspaper added that Amstrad's offer would be considered at a creditors' meeting on Monday.

There was no immediate confirmation from Amstrad yesterday, but Mr Sugar has expressed his interest in expanding the group's telecommunications equipment side.

Approval for Dunhill changes

The corporate restructuring proposed by Richemont of Switzerland was yesterday approved by shareholders in Dunhill Holdings and Rothmans International.

Under the proposals, the luxury goods and tobacco businesses of Dunhill, Richemont and Rothmans will be amalgamated into two new listed companies.

Wilson (Connolly) slips to £8.2m

By Paul Taylor

PRE-TAX profits at Wilson (Connolly) Holdings, the Northampton-based housebuilder, property and construction group, slipped slightly in the first half as lower property profits offset gains at Wilson Homes, the housebuilder.

In the six months to June 30 the pre-tax figure declined from £2.77m to £2.22m while group turnover grew by some 5 per cent to £102m.

Earnings per share dropped

to 2.9p (3.5p) but the interim dividend is maintained at 1.27p.

Mr Lynn Wilson, chairman, said the half year results demonstrated the group's "resilience", and noted that the fall in interest rates "has led to a slow, but at times faltering, recovery in the UK housing market."

Strong purchaser interest in the earlier part of the year helped the group sell 1,500 houses in the first half, up 26 per cent over the 1,350 houses

sold in the 1992 period. However, Mr Wilson said "consumer confidence is still extremely fragile and there is strong resistance to price increases."

The average selling price was unchanged at £54,000 although nationally, prices fell by about 5 per cent and as a result the group's margins remained under pressure. Wilson Homes managed to increase profits by 7 per cent to £7.95m (£7.44m) on turnover of £85.5m (£83.6m).

During the period the group also purchased 2,400 plots, increasing its land bank with planning permission from 13,300 at the end of December to 14,100.

Outside the core housebuilding business Wilson Construction's order book and profits were both reduced reflecting the uneconomic level of prices obtainable by building contractors. Profits dipped from £262,000 to £221,000 on increased turnover of £20.1m (£15.3m).

Profits at Wilson Connolly

Properties fell to £39,000 (£10.7m) on turnover down to £3.58m (£12.3m) but the chairman said the business remained "encouragingly active."

At the end of June the group had cash balances of £10m and gearing, including land creditors, stood at 10 per cent.

COMMENT

The "lumpy" nature of property profits makes for unflattering year-on-year comparisons despite the solid gains at Wilson Homes which is on target to sell another 1,500 houses at slightly firmer margins by year-end. Although the construction business has been contracting and is unlikely to show any real improvement until 1995, brighter prospects for property in the second half should help lift full-year pre-tax profits to around £23m and earnings to about 3.2p per share. The shares slipped 7p to 192p yesterday, but still leave the company on a lofty forward multiple of 23.4.

BOARD MEETINGS

| The following companies have notified dates of board meetings to the Stock Exchange. Such meetings are usually held for the purpose of considering dividends. Official indications are not given as to whether the dividends are interim or final and the sub-dividend shown below are based mainly on last year's transactions. | |
|--|---------|
| Company | Date |
| Adams & Smith | Nov. 9 |
| Adams & Smith | Nov. 10 |
| Adams & Smith | Nov. 11 |
| Adams & Smith | Nov. 12 |
| Adams & Smith | Nov. 13 |
| Adams & Smith | Nov. 14 |
| Adams & Smith | Nov. 15 |
| Adams & Smith | Nov. 16 |
| Adams & Smith | Nov. 17 |
| Adams & Smith | Nov. 18 |
| Adams & Smith | Nov. 19 |
| Adams & Smith | Nov. 20 |
| Adams & Smith | Nov. 21 |
| Adams & Smith | Nov. 22 |
| Adams & Smith | Nov. 23 |
| Adams & Smith | Nov. 24 |
| Adams & Smith | Nov. 25 |
| Adams & Smith | Nov. 26 |
| Adams & Smith | Nov. 27 |
| Adams & Smith | Nov. 28 |
| Adams & Smith | Nov. 29 |
| Adams & Smith | Nov. 30 |

| DIVIDENDS ANNOUNCED | | | | | |
|---------------------|-----------------|-----------------|------------------------|----------------|-----------------|
| Company | Current payment | Date of payment | Corresponding dividend | Total for year | Total last year |
| Adams & Smith | 3.2 | Oct 21 | 2.5 | 5 | 4 |
| Adams & Smith | 1.8 | Nov 29 | 1.8 | 3.6 | 4 |
| Adams & Smith | 0.3 | Dec 7 | 0.25 | 0.55 | 0.55 |
| Adams & Smith | 2.88 | Oct 20 | 2.88 | 5.76 | 7.3 |
| Adams & Smith | 3 | Nov 11 | 3 | 6 | 4 |
| Adams & Smith | 2.34 | Oct 11 | 2.25 | 4.59 | 6.78 |
| Adams & Smith | 2.65 | Dec 1 | 2.75 | 5.4 | 7.75 |
| Adams & Smith | 1.25 | Nov 18 | 2.08 | 3.33 | 3.25 |
| Adams & Smith | 3.3 | Jan 4 | 3.3 | 6.6 | 6.7 |
| Adams & Smith | 2.2 | Jan 5 | 1.8 | 4 | 4 |
| Adams & Smith | 1.7 | Nov 10 | 1.5 | 3.2 | 4.5 |
| Adams & Smith | 0.85 | Nov 12 | 0.75 | 1.6 | 2.6 |
| Adams & Smith | 2.2 | Dec 1 | 2.2 | 4.4 | 6.8 |
| Adams & Smith | 2 | Oct 22 | 2.75 | 4.75 | 6 |
| Adams & Smith | 1.2 | Nov 15 | 1.03 | 2.23 | 3.33 |
| Adams & Smith | 4.2 | Oct 18 | 4.2 | 8.4 | 10 |
| Adams & Smith | 3.07 | Oct 28 | 4.4 | 7.47 | 9.3 |
| Adams & Smith | 11.45 | Nov 8 | 7.51 | 18.96 | 17.75 |
| Adams & Smith | 2.53 | Oct 26 | 3.8 | 6.33 | 9.3 |
| Adams & Smith | 1.05 | Jan 6 | 1.05 | 2.1 | 3.4 |
| Adams & Smith | 3.95 | Nov 12 | 3.35 | 7.3 | 10.5 |
| Adams & Smith | 2.6 | Nov 8 | 2.6 | 5.2 | 6.3 |
| Adams & Smith | 3 | Oct 14 | 2.5 | 5.5 | 14 |
| Adams & Smith | 6.5 | Jan 14 | 6.25 | 12.75 | 16 |
| Adams & Smith | 1.7 | Oct 29 | 1.35 | 3.05 | 1.35 |
| Adams & Smith | 1.27 | Oct 20 | 1.27 | 2.54 | 3.93 |
| Adams & Smith | 5 | Oct 8 | 5 | 10 | 12.5 |
| Adams & Smith | 2.75 | Oct 25 | 2.48 | 5.23 | 4 |

Dividends shown per share net except where otherwise stated. *Adjusted for scrip issue. †On increased capital. ‡USM stock. †Included 5p special. ‡British currency. †To date of an 18 month period.

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COMPANY NEWS: UK

Recession in mainland Europe blamed for downturn at mid-term

IMI declines 3% to £35.5m

By Richard Ridd

THE RECESSION in mainland Europe and a loss in computing services affected IMI, the international engineering company, which reported a 3% fall in pre-tax profits in the half year to the end of June.

The near-3 per cent decline to £35.5m came on the back of increased sales of £546m (£515m). The shares fell 7p to 287p.

However, three of the group's four businesses increased operating profits and the loss-making titanium business broke even in June.

The latter received a further boost by winning a long-term £10m deal to supply parts to Pratt & Whitney. Mr Alan Emson, finance director, said: "We have been anxious to break into the US market for a long time, we will now be supplying about 10 per cent of Pratt & Whitney's needs."

Special engineering, which incorporates the titanium operations, saw operating profits rise from £4.7m to £8.1m.

Building products and drinks dispensing increased profits to £11.2m (£10.9m) and £15.1m (£14.7m) respectively.

The exception was fluid power. With more than half of its business in continental Europe where the impact of the recession has been most severe, profits fell from £10.2m to £9.1m. Other and corporate business incurred a £3.8m loss (profits £400,000) as two of its computer companies, Brook Street and Redwood, slid into the red. The company blamed the loss on the downturn in information technology and the cost of introducing new software.

Mr Emson criticised the electricity duopoly which he blamed for a 16 per cent increase in electricity prices. IMI spends around £10m a year on electricity.

"We will be breathing into a lot of regulatory ears about this. It is an increase that business can ill afford."

Borrowings, which are mostly denominated in US dollars, rose to £129m (£112m), representing gearing of 34 (31) per cent.

The increase was due to the stronger US dollar.

Earnings per share fell to 6.9p (7.3p). The interim dividend is unchanged at 4.2p.

COMMENT

It must be somewhat galling to turn around a loss-making business only to find another operation slide into the red. It would have been more worrying, however, had the loss been reported by one of the core businesses. As it is the deficit in the small computer operations should prove short lived. The profit fall in fluid power has more long-term implications. IMI believes it has come to the end of its recession induced rationalisation. But if the downturn in mainland Europe continues further cost cutting measures may be necessary. With forecast annual pre-tax profits of £74m the shares are on a prospective multiple of 20. That looks high enough given the uncertainty on the Continent.

Brown & Jackson loss rises to £11.5m

By David Blackwell

BROWN & JACKSON, owner of the Poundstretcher discount retail chain, fell deeper into the red in the first half of 1993.

The pre-tax loss increased from £9.78m to £11.45m. However, Mr Ian Gray, chief executive, said yesterday that the group historically had made a loss in the first half as Poundstretcher is highly dependent on Christmas trading, with 50 per cent of turnover coming between September and December.

Turnover rose by 4.7 per cent from £63.8m to £66.8m. The group said like-for-like sales in Poundstretcher were 5.5 per cent ahead. Toyline sales rose 30 per cent and confectionery sales 20 per cent.

B&J, which operates 230 stores, is now one year into its three-year recovery plan. Three months ago it had a £21m rights issue, its second in just over a year, to reduce borrowings and finance a store opening programme.

Interest payments fell in the half to £851,000 against £2.12m and the company had net cash of £2.1m at June 30.

Losses per share fell from 4.4p to 2.5p.

Mr Gray said yesterday that significant progress had been made with the group's recovery plan. He blamed the increased loss on margin reductions from the clearance of slow moving stock early in the year, and more than £2m of capital expenditure, including the installation of an electronic point of sale system.

Working capital had been cut, mainly through a 10 per cent reduction in stocks. This had been achieved without the benefits of Epos and at a time of rising sales.

There is no interim dividend.

Boddington doubles after £15m Devenish stake sale

By Catherine Milton

HALF YEAR profits at Boddington, the pubs and wholesale group, more than doubled as the company booked a net £14.7m gain on the sale of its near 20 per cent stake in Devenish, a legacy of its failed bid for the West Country pubs group.

The group was cautious about the outlook, however. "There really are no reliable signs that the recession's grip on consumer expenditure has slackened," Mr Denis Cassidy, chairman said. July and August had not shown the usual seasonal uplift.

Pre-tax profits rose to £26.2m (£9.7m) in the six months to

July 4 on the disposal of the stake in Devenish which was taken over by the Greenalls pubs and hotel company in June. Stripping out property and exceptional items, the company increased underlying pre-tax profits by 13.9 per cent to £12.2m (£10.7m).

Turnover rose to £113.2m (£111.8m) excluding the new year period because the trading year began on January 3. Pubs, the most profitable sector, moved ahead to £50.3m (£47.7m), hotels to £7.18m (£4.37m), nursing homes to £6.41m (£5.73m) with only drinks wholesaling falling back to £49.2m (£53.3m) against fierce discounting in free trade.

Operating profits rose to

£14.7m (£14.1m) with pubs contributing an improved £10.3m (£10.1m), hotels £1.13m (£430,000), health care £1.6m (£1.5m) and drinks wholesaling sagging to £2.87m (£3.1m).

Interest charges fell to £3.38m (£4.05m) while borrowings rose to £101.7m (£93.7m) as the company converted a final £5.65m tranche of outstanding unsecured convertible loan stock.

Borrowings have since fallen with the proceeds from the Devenish sale. Gearing, excluding the Devenish proceeds, at the halfway stage was 47.1 per cent compared with 48.6 per cent at the year end.

The interim is 2.88p (2.6p) and earnings 18.1p (5.9p).

GTI helps Telemetrix jump to £7.9m

By Peter Pearson

WITH ALL its three companies reporting substantial profits increases, Telemetrix, the electronics and information systems company, saw pre-tax profits jump to £7.93m in the six months to June 30, though last time's £773,000 was struck after exceptional provisions of £2.93m.

Group turnover advanced to £61.5m (£46.8m).

Operating profits more than doubled to £7.95m (£3.88m), with continuing operations contributing £8.13m (£4.22m).

This was largely thanks to GTI Corporation, the data communications subsidiary which was 60.6 per cent owned by Telemetrix during the period.

It made operating profits of \$9.8m (with an exchange rate of \$1.50/£1), against \$5.7m (£1.80/£1) last time.

Since June 30 GTI has lifted its holding in Valor, its network components arm, a further 4.4 per cent to 97.3 per cent for \$10.5m in promissory notes, since redeemed by a public offering of 400,000 common shares in GTI. This reduced Telemetrix' holding in

GTI to 58.3 per cent, though Mr Curtis said that his company's stake in Valor rose from 55 to 56.7 per cent with no outlay of cash.

Valor's sales, mainly in the US, grew 61 per cent to \$45.1m, accounting for some 70 per cent of GTI's \$64.5m (£48.6m) total sales, though Mr Curtis acknowledged that this rate of growth in Valor's local area network business could not continue.

Zetex, the UK manufacturer of specialist semi-conductors 70 per cent of which are sold outside the UK, raised profits to £1.25m (£809,000) on turnover

of £9.37m (£7.02m). Shorn of its defence-related operations, sales at Trend, the telecommunications test equipment maker, fell to £6.76m (£7.46m), but operating profits rose to £680,000 compared with £247,000.

Further growth in its current markets would be sufficient, said Mr Tim Curtis, chief executive, but the group was looking for acquisitions to broaden its product range or to move into a new technology.

It currently has £6.6m cash. Earnings per share emerged at 3.8p (losses 1.6p).

Unipart climbs 19% to £11.3m

By John Griffiths

UNIPART, the motor parts and accessories manufacturer and distributor, increased its pre-tax profits by 19 per cent from £9.5m to £11.3m in the first half of 1993.

The company, which is investing heavily to increase its component manufacturing operations, also disclosed that its Premier Exhausts subsidiary has secured contracts to supply exhaust systems to Saab, the General Motors-controlled executive car maker.

The contracts, worth £8m a year, mark a significant step in a drive by Unipart to broaden its manufacturing customer base in Europe. Once primarily a distributor and maker of parts for its former owner, Rover Group, Unipart also began manufacturing components for Honda several years ago.

This year it has begun supplying Toyota's Derbyshire car plant with flywheels, axle housings and shafts through Advanced Engineering Systems, a joint venture with

Beams Industries in which Unipart has an 80 per cent stake. The first-half profit increase was on sales 5.6 per cent higher at £353.3m (£334.6m). Profit before interest rose by 21 per cent to £11m. No tax was payable.

The company, which is 45 per cent owned by employees and managers, 30 per cent by Rover and the remainder by institutions, has repaid the shares bought for 5p by employees when Unipart was privatised in 1987. They now stand at 980p.

Capital Industries makes acquisition

Capital Industries has purchased the business and certain assets of Property Enterprise Managers for £229,000. Unaudited accounts for the year ended June 30 1993 indicated a pre-tax loss of £1.5m on turnover of £1.2m.

Govett Strategic Trust calls EGM to take vote on survival

By Philip Coggan, Personal Finance Editor

GOVETT STRATEGIC Investment Trust, the small and medium companies specialist with total assets of about £400m, has called an extraordinary general meeting to propose that its life be extended.

A simple resolution "That the company continue in existence" will be proposed at an EGM on September 23, and requires a bare majority to be passed. The resolution dates from an change in the company's Articles dating back to December 1991, under which shareholders were given the right to vote on the liquidation of the trust at the 1993 annual meeting and at subsequent three year intervals.

The poor performance of small company shares and a

high level of gearing caused Govett Strategic immense problems after the 1987 stock market crash. In each of the financial years 1987-88 and 1989-91 the trust's net asset value fell by 44 per cent.

Shareholder discontent led to the "smoking fuse" clause in December 1991, designed to help narrow the discount to net assets at which the shares traded.

At the same time, managers John Govett were given a performance-related management fee, based on their ability to outperform the FT-A All-Share Index.

Govett Strategic's board argues that the trust should continue because:

● the trust's performance has shown a significant improvement both absolutely and against the All-Share.

● signs of recovery make this an inappropriate time to liquidate the trust. In any case, the costs of liquidation would be substantial, especially given that some £6m of debentures, which are trading above par, would have to be redeemed.

● the management agreement with John Govett has been renegotiated and is likely to cost less than the current arrangement. Under the current arrangement, Govett gets 0.375 per cent of total assets per annum, plus a 0.125 per cent performance-related fee. The new scheme would give Govett 0.5 per cent of equity assets, but only 0.125 per cent of bond assets.

● the trust can use its reserves to at least maintain the total dividend for the next three years.

IMI

INTERIM RESULTS

"...compared with the same period last year, three of our four core business areas achieved higher profits. The exception was Fluid Power, which has more than half of its business in Continental Europe where the impact of recession has been most severe.

Operating cash flow remained positive and exchange rate differences were mainly responsible for an increase in gearing to 34% compared with 31% at 30 June 1992".

Sir Eric Fountain, Chairman

| | HALF YEAR TO 30 JUNE | |
|--------------------|----------------------|--------|
| | 1993 | 1992 |
| Sales | £546m | £515m |
| Profit before tax | £35.5m | £36.5m |
| Earnings per share | 6.9p | 7.3p |
| Dividend per share | 4.2p | 4.2p |

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NOTICE IS HEREBY GIVEN THAT, pursuant to Condition 5(d) of the Notes, the Society will, at the option of any Noteholder, redeem any Note held by such Noteholder at its principal amount on the next Interest Payment Date, October 21, 1993 (the "Exercise Date"). Following the redemption of any such Note, all unexercised Coupons appertaining thereto (whether or not attached) shall become void and no payment shall be made in respect thereof.

To exercise such option, a Noteholder must deposit any Note(s) together with any unexercised Coupons appertaining thereto, accompanied by a duly signed and completed notice of the exercise of this option in the form obtainable from the specified office of any Paying Agent listed below (an "Option Notice"), with the Paying Agent from whom payment is required or to the order of such Paying Agent with a bank or depository approved by it, at any time in the period from and including August 22, 1993 to and including September 16, 1993 being the 35th day before the Exercise Date. The Paying Agent with which any Note(s) is/are deposited shall issue a non-transferable receipt (an "Optioned Note Receipt") in respect of such Note(s), to the Noteholder.

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COMPANY NEWS: UK

Currency movements account for about half of profits increase

Macro 4 advances to £10.5m

By Paul Taylor

MACRO 4, the mainframe computer software group, yesterday reported higher full year pre-tax profits and turnover, helped by currency movements which accounted for about half of the gains.

Profits at the pre-tax level increased by 20 per cent to £10.5m in the 12 months to June 30 on turnover which grew by 22.3 per cent to £23.3m. Net interest income was flat at £1.28m (£1.28m).

Earnings per share rose by 18.9 per cent to 31.5p and a final dividend of 11.45p makes a same-again 17.75p. However,

the comparative dividend included a special 5p payment.

The group's share price gained 10p to close at 863p.

The overseas proportion of turnover increased to 80 per cent (76 per cent), of which 39 per cent originated in continental Europe and 36 per cent came from the US.

Mr Terry Kelly, chairman, said currency movements, particularly the dollar, had a significant impact on the consolidated results which were based on a year-end exchange rate of \$1.49 compared with \$1.90. On a like-for-like basis, turnover would have increased by 11.4 per cent to £21.2m and pre-tax

profits by 9 per cent to £9.54m.

Group cash balances continued to grow and totalled £19.75m (£15.6m) at the end of June, including £1.5m to cover a delayed tax payment.

The £4.1m increase reflected the strong cash generative nature of the group's activities and came despite higher dividend payments in 1992 which included the 5p special.

Mr Kelly said the group had continued to make progress "despite continued difficult trading conditions." He said cancellations were continuing to impact the installed revenue base, but were still being out-paced by new sales.

All of the group's subsidiaries managed to improve their turnover and contribution to profits in local currency terms "despite less than buoyant local economic conditions, strong competition and extended decision cycles."

During the year the group set up its own subsidiary in Spain, replacing a series of unsatisfactory agents, and has begun to launch a range of products for the AS/400 mid-range computer market to complement its core mainframe software products designed to run on any IBM or IBM compatible machines.

Revival in demand lifts Headlam to £1.13m

A REVIVAL in consumer demand has boosted the profits of Headlam, the acquisitive fabrics and flooring distribution group, in the first half of 1993, writes Tim Burt.

Backed up by increased efficiency and tight financial controls the pre-tax profit climbed from £213,000 to £1.13m on turnover up by 76 per cent to £42m (£24m).

Mr Ian Kirkham, chief executive, said the group was not planning further acquisitions in the near future but concentrating instead on improving the "motley collection of [eight] businesses" purchased since January 1992.

Mr Graham Waldron, chairman, said the profit growth mainly reflected the success of the floor covering division, particularly through demand for Aquatex, the industrial walkway product.

Difficult trading conditions, however, had kept its footwear sector only at break-even levels; while the contribution of the fabric divisions was expected to be enhanced by the past year's acquisitions.

Earnings per share increased from 0.86p to 1.13p, and the interim dividend is stepped up from 0.75p to 0.85p.

Avonside begins to improve

PROFITS of Avonside, the building services and house-building group, fell from £3.8m to £2.2m pre-tax for the half year ended June 30.

However, the directors said the increased activity experienced in the opening quarter had continued through the first half.

Explaining the downturn they noted that an extremely low level of housing reservations in the final quarter of 1992 had translated into a low level of sales completions in the first quarter of 1993.

Operating profits for that period fell from £1.2m to £500,000, but for the second quarter improved from £1.8m to £1.8m.

Sales completions of 31 units in the first quarter compared with 87 in the second quarter. In total, sales for the half year were down by seven units to 118.

The directors believed that the worst of the recession in the housing market was now coming to an end and that the sales upturn in both segments of the group in the second quarter would be sustained during the rest of the year.

First half turnover expanded from £25.5m to £28.5m. Acquisitions added £283,000 to turnover and £126,000 to profits. Earnings fell to 3.41p (4.37p) but the interim dividend is being lifted to 1.5p (1.5p).

Newman Tonks rises to £8m but cuts pay-out

By Tim Burt

NEWMAN TONKS, the biggest manufacturer in Europe of architectural hardware, hailed a sharp improvement in its US business as the main factor behind an increase in pre-tax profits for the first half of 1993.

For the period to June 30 1993, compared with the six months ended April 30 1992, turnover rose to £138.7m (£109.4m) and the profit came out at £8.1m (£6.62m). Earnings per share were 3.75p (3.5p).

However, the company is cutting its interim dividend by about one-third from 3.8p to 2.53p and warned that the final would be reduced by a similar amount (last year 5.5p was paid).

It explained that the poor market conditions in Britain, where 63 per cent of turnover

was earned, meant it could not maintain dividend levels.

"Continuation of the present level of dividend payments, and the consequent burden of irrevocable ACT, would have a detrimental effect on cash flow. Rebasement of the dividend at a more affordable level will enable the group to grow at a faster rate."

Operating profits in the US, where two subsidiaries manufacture locks and a third makes timber columns, more than doubled to £1.97m (£897,000).

Mr Geoff Gahan, chief executive, said stronger sales overseas had helped turnover grow. The improvement had been boosted by currency fluctuations and the devaluation of sterling, he added, citing the success of Tesa, the partly-owned subsidiary in Spain, where the weak peseta

had enabled it to export 60 per cent of its output to the US.

The strong performance in the US and steady growth in UK operating profit, up to £4m (£3.37m), was the result of a two year rationalisation programme in which the workforce had been cut by 18 per cent since 1990 and a number of smaller businesses closed.

Although the rationalisation was now complete Mr Gahan said: "We will not hesitate to cut costs further if necessary."

Net bank borrowings, meanwhile, increased to £30.5m (£18.2m).

This mainly reflected the final dividend payment for 1992 totalling £9m, a £900,000 acquisition in New Zealand and capital expenditure of more than £5m.

Cost cutting and improving markets help Adscene

COST CUTTING and a steady improvement in the market helped Adscene Group, the Canterbury-based newspaper publisher, to raise pre-tax profits by 30 per cent from £1.61m to £2.1m in the year ended May 31.

The shares responded with a 12p rise to 187p. Turnover was 7 per cent lower at £13.96m (£15.04m) and with operating profits ahead from £2.08m to £2.3m, margins grew from 13.9 per cent to 16.5 per cent.

Mr Harry Lambert, chairman and chief executive, said that after a strong end to the year trading had continued to improve in the first quarter.

Turnover had increased and advertising revenues of the publishing division had shown consistent improvements.

Based on this performance, he looked forward

to a "most satisfactory year."

With earnings per share up 19 per cent to 10.1p (8.5p), the recommended final dividend has been raised to 3.2p (2.5p) for a total 1p higher at 5p.

The publishing side had a good year, especially in the second half when the group experienced a marked improvement in trading conditions. Operating profits grew by 15 per cent to £1.68m.

In printing, as a result of changed work schedules following more work from the publishing division and tight cost control, margins were lifted from 12.1 per cent to 35 per cent. Profits increased from £460,000 to £516,000.

Strong cash flow enabled the group to repay £1.78m of debt and reduce gearing from 32 per cent to 18 per cent at the year end.

Cantors hit by recession

A FALL in pre-tax profits, from £2.1m to £1.67m, was announced by Cantors, the retail furnishing group, for the year to April 24.

The result was achieved on turnover of £60.3m (£63.3m) which reflected the continuing recession.

There was some slight improvement in current trading and early results from the new units in retail parks were encouraging.

Earnings per share were 6.66p (9.02p). The final is held at 3p for a maintained 4p total.

Wyevale Garden ahead 20%

WYEVALE Garden Centres lifted pre-tax profits by 20 per cent from £3.09m to £3.71m in the six months ended June 30.

The result was achieved on turnover 8 per cent ahead to £22m (£20.3m) and were in spite of adverse weather conditions in the peak selling months of April and May, said Mr Christopher Powell, chairman.

He said the group had experienced 11 months of continued recovery across all geographical locations and against that background, a more positive approach was being adopted towards further acquisitions.

Wyevale currently operates 41 garden centres and five high street shops.

Earnings per share emerged at 8.7p (7.3p) and the interim dividend is lifted to 2.75p (2.45p). The company's shares trade on the USM.

Ben Bailey
Ben Bailey Construction, the Yorkshire house builder, returned to profit over the 12 months ended June 30, making £101,000 pre-tax.

The period is part of an 18

month accounting term to December 31. In the second six months there was a profit of £77,000 compared with a loss of £53,000. Loss for the year ended June 30 1992 was £248,000.

Earnings per share worked through at 0.67p (losses 2.98p) for the 12 months. A second interim dividend of 0.3p is declared to maintain 0.55p.

The directors said the new housing market remained difficult, but there had been some signs of buyer confidence returning.

TR Euro Growth

Net asset value per ordinary share of TR European Growth Trust improved from 97.85p to 117.84p over the 12 months ended June 30.

The directors said the figure was helped by improved European stock markets with smaller companies returning to favour.

Gross revenue for the past year benefited from sterling's weakness and expanded to £1.84m (£1.72m).

Net revenue worked through at £1m (£881,000), equal to earnings of 2.61p (2.29p). The single dividend is being lifted from 1.36p to 1.7p.

Reece losses cut

A substantial reduction in first half losses at Reece has come

from cost reductions, points out the chairman Mr Peter Knapton. Once sales pick up the low cost base should ensure a return to profits.

In the first half of 1993 turnover fell from £6.58m to £6.14m and losses were cut from £183,000 to £11,000. In the whole of 1992 there was a deficit of £932,000.

All divisions traded more profitably. The door panels operation returned to profit helped by higher exports and cost control, while the fasteners activity turned in a much reduced operating deficit, again principally through cost savings.

Brooke Tool

Reflecting their increasing confidence in the future of Brooke Tool Engineering, the directors propose a capital restructuring which will lead to a return to dividends.

Subject to shareholders' and Court approval, the share premium account will be reduced by £1.1m. Depending on results for the year ending September 30 1993 this will enable the company to pay dividend out of future earnings.

EFM Income

Over the three months ended July 31 1993 net asset value of ordinary shares at EFM Income Trust rose from 46.9p

to 50.2p. Similarly, the value of zero dividend preference shares was ahead from 43.7p to 44.3p.

On the revenue side, first quarter pre-tax revenue fell from £206,000 to £206,000, with earnings per share working through at 1.1p (1.5p).

The first interim dividend is cut from 1.2p to 1p.

Harrington Kilbride

Strong organic growth in both international and UK contract publishing helped Harrington Kilbride, the specialist magazine publisher, turn in a 47 per cent increase in pre-tax profit for the half year ended June 30, up from £422,000 to £621,000.

Turnover was 58 per cent ahead at £8.76m (£5.53m).

Earnings per share advanced to 4.1p (2.7p) and the interim dividend is 1.7p (1.5p).

Burmah Castrol

Burmah Castrol, the international manufacturer and marketer of specialised oil and chemical products, has set up a new trading company in Thailand in partnership with Loxley, the partner of sister company Castrol in Thailand.

The joint venture, to be known as Foseco (Thailand), will be 74 per cent-owned by Burmah Castrol. It will source and supply metallurgical chemicals from the area.

H

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KPN NEWS

Rise in turnover and profits for Royal PTT Nederland NV

In the first six months of 1993, the turnover of Royal PTT Nederland NV (KPN) went up by 504 million guilders to 8,395 million guilders, a rise of more than 6% over the corresponding period in 1992. The profit after taxation went up by 9% from 802 million guilders to 873 million guilders. The Board of Management is predicting a higher operating profit for 1993 than for last year, despite the uncertain economic outlook. Capital expenditure by KPN amounted to approximately 1.6 billion guilders in the first six months of 1993. Total capital expenditure for the full year is expected to exceed 3.5 billion guilders.

PTT Post has achieved its results by increasing its turnover and controlling the development of costs. It is creating new business units to improve efficiency and reduce overheads. National and international alliances have also contributed to the favourable developments. Turnover in international mail increased as a result of active marketing and a successful policy to attract new business. Here too PTT Post International has managed to maintain its share of the business market. PTT Telecom also improved its turnover and operating profit in the first six months of 1993. Efficiency measures adopted as part of the policy to economise within PTT Telecom are beginning to bear fruit. National tele-

phone traffic went up by 5% compared with the corresponding period in 1992. Mobile communications services are also growing. The number of car telephone connections went up by 33%. International telephone traffic rose by 10%. Volume growth and tariffs are under increasing pressure in this segment of the market. PTT Telecom therefore again reduced a number of international telephone tariffs in the first half of 1993. Unisource, the joint venture in which PTT Telecom and Telia of Sweden (formerly Televerket) are concentrating a significant proportion of their international activities, has been strengthened by the participation of Swiss PTT Telecom as of July 1, 1993.

| | 1st 6 months 1993 | 1st 6 months 1992 | % change |
|---|-------------------|-------------------|----------|
| Total operating income | 8,395* | 7,891* | 6.4 |
| Operating result | 1,572* | 1,495* | 5.2 |
| Profit after taxation | 873* | 802* | 8.9 |
| Per ordinary share of Dfl. 100 each (amounts in millions of guilders) | | | |
| • Cashflow | 66.78 | 56.23 | 18.8 |
| • Profit after taxation | 21.83 | 20.05 | 8.9 |

*amounts in millions of guilders



INVESTMENT TRUSTS - Cont.

| | | | |
|------|----|--------|------|
| 4014 | 12 | 32.82 | 22.2 |
| 4015 | 12 | 32.82 | 4.9 |
| 250 | 23 | 33.231 | 13.5 |
| 251 | 14 | 33.231 | 0.5 |
| 118 | 18 | 33.285 | 4.7 |
| 119 | 18 | 33.285 | 7.7 |
| 184 | 57 | 33.293 | 4.9 |
| 185 | 57 | 33.293 | 7.7 |
| 81 | 43 | 33.352 | 7.7 |
| 81 | 43 | 33.352 | 4.2 |
| 118 | 18 | 33.352 | 4.2 |
| 119 | 18 | 33.352 | 7.7 |
| 112 | 32 | 33.356 | 0.1 |
| 113 | 32 | 33.356 | 7.7 |
| 114 | 32 | 33.356 | 4.2 |
| 115 | 32 | 33.356 | 7.7 |
| 82 | 32 | 33.356 | 4.2 |
| 83 | 32 | 33.356 | 7.7 |
| 1124 | 32 | 33.356 | 4.2 |
| 1125 | 32 | 33.356 | 7.7 |
| 1126 | 32 | 33.356 | 4.2 |
| 1127 | 32 | 33.356 | 7.7 |
| 1128 | 32 | 33.356 | 4.2 |
| 1129 | 32 | 33.356 | 7.7 |
| 1130 | 32 | 33.356 | 4.2 |
| 1131 | 32 | 33.356 | 7.7 |
| 1132 | 32 | 33.356 | 4.2 |
| 1133 | 32 | 33.356 | 7.7 |
| 1134 | 32 | 33.356 | 4.2 |
| 1135 | 32 | 33.356 | 7.7 |
| 1136 | 32 | 33.356 | 4.2 |
| 1137 | 32 | 33.356 | 7.7 |
| 1138 | 32 | 33.356 | 4.2 |
| 1139 | 32 | 33.356 | 7.7 |
| 1140 | 32 | 33.356 | 4.2 |
| 1141 | 32 | 33.356 | 7.7 |
| 1142 | 32 | 33.356 | 4.2 |
| 1143 | 32 | 33.356 | 7.7 |
| 1144 | 32 | 33.356 | 4.2 |
| 1145 | 32 | 33.356 | 7.7 |
| 1146 | 32 | 33.356 | 4.2 |
| 1147 | 32 | 33.356 | 7.7 |
| 1148 | 32 | 33.356 | 4.2 |
| 1149 | 32 | 33.356 | 7.7 |
| 1150 | 32 | 33.356 | 4.2 |
| 1151 | 32 | 33.356 | 7.7 |
| 1152 | 32 | 33.356 | 4.2 |
| 1153 | 32 | 33.356 | 7.7 |
| 1154 | 32 | 33.356 | 4.2 |
| 1155 | 32 | 33.356 | 7.7 |
| 1156 | 32 | 33.356 | 4.2 |
| 1157 | 32 | 33.356 | 7.7 |
| 1158 | 32 | 33.356 | 4.2 |
| 1159 | 32 | 33.356 | 7.7 |
| 1160 | 32 | 33.356 | 4.2 |
| 1161 | 32 | 33.356 | 7.7 |
| 1162 | 32 | 33.356 | 4.2 |
| 1163 | 32 | 33.356 | 7.7 |
| 1164 | 32 | 33.356 | 4.2 |
| 1165 | 32 | 33.356 | 7.7 |
| 1166 | 32 | 33.356 | 4.2 |
| 1167 | 32 | 33.356 | 7.7 |
| 1168 | 32 | 33.356 | 4.2 |
| 1169 | 32 | 33.356 | 7.7 |
| 1170 | 32 | 33.356 | 4.2 |
| 1171 | 32 | 33.356 | 7.7 |
| 1172 | 32 | 33.356 | 4.2 |
| 1173 | 32 | 33.356 | 7.7 |
| 1174 | 32 | 33.356 | 4.2 |
| 1175 | 32 | 33.356 | 7.7 |
| 1176 | 32 | 33.356 | 4.2 |
| 1177 | 32 | 33.356 | 7.7 |
| 1178 | 32 | 33.356 | 4.2 |
| 1179 | 32 | 33.356 | 7.7 |
| 1180 | 32 | 33.356 | 4.2 |
| 1181 | 32 | 33.356 | 7.7 |
| 1182 | 32 | 33.356 | 4.2 |
| 1183 | 32 | 33.356 | 7.7 |
| 1184 | 32 | 33.356 | 4.2 |
| 1185 | 32 | 33.356 | 7.7 |
| 1186 | 32 | 33.356 | 4.2 |
| 1187 | 32 | 33.356 | 7.7 |
| 1188 | 32 | 33.356 | 4.2 |
| 1189 | 32 | 33.356 | 7.7 |
| 1190 | 32 | 33.356 | 4.2 |
| 1191 | 32 | 33.356 | 7.7 |
| 1192 | 32 | 33.356 | 4.2 |
| 1193 | 32 | 33.356 | 7.7 |
| 1194 | 32 | 33.356 | 4.2 |
| 1195 | 32 | 33.356 | 7.7 |
| 1196 | 32 | 33.356 | 4.2 |
| 1197 | 32 | 33.356 | 7.7 |
| 1198 | 32 | 33.356 | 4.2 |
| 1199 | 32 | 33.356 | 7.7 |
| 1200 | 32 | 33.356 | 4.2 |

Group Div. _____ 2002 _____ 100 _____
Henderson Endnotes \$9 _____ 00 _____ 100 _____
P/E _____ 100 _____ 100 _____

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| 314 | 8.8 | 117.2 | -7.1 |
| 108 | - | - | - |
| 18 | 0.7 | 258.1 | 2.3 |
| 175 | - | 125.2 | 6.2 |
| 101 | 4.7 | 80.1 | 23.8 |
| 38 | - | - | - |
| 10 | - | - | - |
| 314 | - | - | - |
| 73 | 18.6 | 108.4 | 18.9 |
| 77 | - | - | - |
| 20 | 3.7 | 108.4 | 10.7 |
| 47 | 1.4 | 88.1 | 28.2 |
| 6 | - | - | - |
| 134 | 4.3 | 138.1 | -1.3 |
| 975 | - | 110.9 | 4.4 |
| 108 | 17.2 | - | - |
| 101 | 7.9 | - | - |
| 38 | - | 239.7 | 86.7 |
| 82 | 13.7 | - | - |
| 10 | - | - | - |

| | | |
|------|------------|----|
| 20.0 | Jovis Inc. | 68 |
| 29.4 | Dyn | 41 |
| 18.8 | | |

| | | | |
|-----|-------|------|------|
| 72 | 3.0 | 30.0 | 7.0 |
| 73 | 3.0 | 30.0 | 7.0 |
| 74 | 4.0 | 4.0 | 8.0 |
| 75 | 3.0 | 30.0 | 8.0 |
| 76 | 100.0 | 1.0 | 8.0 |
| 77 | 4.0 | 4.0 | 22.0 |
| 78 | 84 | 10.0 | 1.0 |
| 79 | 107 | 10.0 | -0.2 |
| 80 | 74 | 97.0 | 5.0 |
| 81 | 130.0 | 1.0 | 19.0 |
| 82 | 107 | 28.0 | 9.0 |
| 83 | 108 | 28.0 | 9.0 |
| 84 | 315 | 31.0 | 1.0 |
| 85 | 315 | 30.0 | -0.5 |
| 86 | 14 | 12.0 | -0.0 |
| 87 | 91 | 3.0 | 58.0 |
| 88 | 97 | 3.0 | 58.0 |
| 89 | 48 | 10.0 | 7.0 |
| 90 | 86 | 10.0 | 6.0 |
| 91 | 50 | 12.0 | 1.0 |
| 92 | 55.0 | 11.0 | 31.0 |
| 93 | 34 | 4.0 | 32.0 |
| 94 | 94 | 4.0 | 32.0 |
| 95 | 131 | 4.0 | 32.0 |
| 96 | 135 | 3.0 | 29.0 |
| 97 | 131 | 3.0 | 29.0 |
| 98 | 130 | 3.0 | 29.0 |
| 99 | 130 | 3.0 | 29.0 |
| 100 | 130 | 3.0 | 29.0 |
| 101 | 130 | 3.0 | 29.0 |
| 102 | 130 | 3.0 | 29.0 |
| 103 | 130 | 3.0 | 29.0 |
| 104 | 130 | 3.0 | 29.0 |
| 105 | 130 | 3.0 | 29.0 |
| 106 | 130 | 3.0 | 29.0 |
| 107 | 130 | 3.0 | 29.0 |
| 108 | 130 | 3.0 | 29.0 |
| 109 | 130 | 3.0 | 29.0 |
| 110 | 130 | 3.0 | 29.0 |
| 111 | 130 | 3.0 | 29.0 |
| 112 | 130 | 3.0 | 29.0 |
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| 114 | 130 | 3.0 | 29.0 |
| 115 | 130 | 3.0 | 29.0 |
| 116 | 130 | 3.0 | 29.0 |
| 117 | 130 | 3.0 | 29.0 |
| 118 | 130 | 3.0 | 29.0 |
| 119 | 130 | 3.0 | 29.0 |
| 120 | 130 | 3.0 | 29.0 |
| 121 | 130 | 3.0 | 29.0 |
| 122 | 130 | 3.0 | 29.0 |
| 123 | 130 | 3.0 | 29.0 |
| 124 | 130 | 3.0 | 29.0 |
| 125 | 130 | 3.0 | 29.0 |
| 126 | 130 | 3.0 | 29.0 |
| 127 | 130 | 3.0 | 29.0 |
| 128 | 130 | 3.0 | 29.0 |
| 129 | 130 | 3.0 | 29.0 |
| 130 | 130 | 3.0 | 29.0 |
| 131 | 130 | 3.0 | 29.0 |
| 132 | 130 | 3.0 | 29.0 |
| 133 | 130 | 3.0 | 29.0 |
| 134 | 130 | 3.0 | 29.0 |
| 135 | 130 | 3.0 | 29.0 |
| 136 | 130 | 3.0 | 29.0 |
| 137 | 130 | 3.0 | 29.0 |
| 138 | 130 | 3.0 | 29.0 |
| 139 | 130 | 3.0 | 29.0 |
| 140 | 130 | 3.0 | 29.0 |
| 141 | 130 | 3.0 | 29.0 |
| 142 | 130 | 3.0 | 29.0 |
| 143 | 130 | 3.0 | 29.0 |
| 144 | 130 | 3.0 | 29.0 |
| 145 | 130 | 3.0 | 29.0 |
| 146 | 130 | 3.0 | 29.0 |
| 147 | 130 | 3.0 | 29.0 |
| 148 | 130 | 3.0 | 29.0 |
| 149 | 130 | 3.0 | 29.0 |
| 150 | 130 | 3.0 | 29.0 |

| | | | |
|-----|----------|-----|----|
| 3.4 | Cap | 400 | -2 |
| 5.9 | Material | 107 | |

| | | | | |
|-----|-----|------|-------|-----|
| 87 | 119 | 3 | 134.0 | 0.8 |
| 88 | 47 | 10.1 | 134.0 | 1.5 |
| 89 | 47 | 10.1 | 134.0 | 1.5 |
| 90 | 11 | 0.1 | 134.0 | 0.7 |
| 143 | 92 | 0.1 | 135.0 | 0.7 |
| 144 | 92 | 0.1 | 135.0 | 0.7 |
| 145 | 30 | 0.7 | 146.5 | 0.9 |
| 146 | 30 | 0.7 | 146.5 | 0.9 |
| 147 | 157 | 0.1 | 146.5 | 1.5 |
| 222 | 221 | 0.2 | 254.1 | 0.8 |
| 223 | 221 | 10.4 | 254.1 | 0.8 |
| 224 | 15 | 0.1 | 254.1 | 0.8 |
| 225 | 110 | 0.1 | 254.1 | 0.8 |
| 226 | 110 | 0.1 | 254.1 | 0.8 |
| 227 | 128 | 0.8 | 254.1 | 0.8 |
| 228 | 128 | 0.8 | 254.1 | 0.8 |
| 229 | 127 | 0.8 | 254.1 | 0.8 |
| 230 | 127 | 0.8 | 254.1 | 0.8 |
| 231 | 128 | 3.2 | 264.5 | 2.0 |
| 232 | 128 | 3.2 | 264.5 | 2.0 |
| 233 | 128 | 3.2 | 264.5 | 2.0 |
| 234 | 128 | 3.2 | 264.5 | 2.0 |
| 235 | 128 | 3.2 | 264.5 | 2.0 |
| 236 | 128 | 3.2 | 264.5 | 2.0 |
| 237 | 87 | 0.8 | 264.5 | 0.8 |
| 238 | 102 | 0.4 | 264.5 | 0.8 |
| 239 | 102 | 0.4 | 264.5 | 0.8 |
| 240 | 102 | 0.4 | 264.5 | 0.8 |
| 241 | 102 | 0.4 | 264.5 | 0.8 |
| 242 | 110 | 0.4 | 264.5 | 0.8 |
| 243 | 110 | 0.4 | 264.5 | 0.8 |
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| 294 | 110 | 0.4 | 264.5 | 0.8 |
| 295 | 110 | 0.4 | 264.5 | 0.8 |
| 296 | 110 | 0.4 | 264.5 | 0.8 |
| 297 | 110 | 0.4 | 264.5 | 0.8 |
| 298 | 110 | 0.4 | 264.5 | 0.8 |
| 299 | 110 | 0.4 | 264.5 | 0.8 |
| 300 | 110 | 0.4 | 264.5 | 0.8 |

| | | | |
|-----|--------------|----------------|----|
| | Zero Div Prf | 184 | |
| 9.6 | 41.7 | Murray Moulton | JK |

[illegible]

LONDON SHARE SERVICE

INVESTMENT TRUSTS - Cont.

| Trust Name | Price | 1993 | 1992 | 1991 | 1990 | 1989 | 1988 | 1987 | 1986 | 1985 | 1984 | 1983 | 1982 | 1981 | 1980 | 1979 | 1978 | 1977 | 1976 | 1975 | 1974 | 1973 | 1972 | 1971 | 1970 | 1969 | 1968 | 1967 | 1966 | 1965 | 1964 | 1963 | 1962 | 1961 | 1960 | 1959 | 1958 | 1957 | 1956 | 1955 | 1954 | 1953 | 1952 | 1951 | 1950 | 1949 | 1948 | 1947 | 1946 | 1945 | 1944 | 1943 | 1942 | 1941 | 1940 | 1939 | 1938 | 1937 | 1936 | 1935 | 1934 | 1933 | 1932 | 1931 | 1930 | 1929 | 1928 | 1927 | 1926 | 1925 | 1924 | 1923 | 1922 | 1921 | 1920 | 1919 | 1918 | 1917 | 1916 | 1915 | 1914 | 1913 | 1912 | 1911 | 1910 | 1909 | 1908 | 1907 | 1906 | 1905 | 1904 | 1903 | 1902 | 1901 | 1900 | 1899 | 1898 | 1897 | 1896 | 1895 | 1894 | 1893 | 1892 | 1891 | 1890 | 1889 | 1888 | 1887 | 1886 | 1885 | 1884 | 1883 | 1882 | 1881 | 1880 | 1879 | 1878 | 1877 | 1876 | 1875 | 1874 | 1873 | 1872 | 1871 | 1870 | 1869 | 1868 | 1867 | 1866 | 1865 | 1864 | 1863 | 1862 | 1861 | 1860 | 1859 | 1858 | 1857 | 1856 | 1855 | 1854 | 1853 | 1852 | 1851 | 1850 | 1849 | 1848 | 1847 | 1846 | 1845 | 1844 | 1843 | 1842 | 1841 | 1840 | 1839 | 1838 | 1837 | 1836 | 1835 | 1834 | 1833 | 1832 | 1831 | 1830 | 1829 | 1828 | 1827 | 1826 | 1825 | 1824 | 1823 | 1822 | 1821 | 1820 | 1819 | 1818 | 1817 | 1816 | 1815 | 1814 | 1813 | 1812 | 1811 | 1810 | 1809 | 1808 | 1807 | 1806 | 1805 | 1804 | 1803 | 1802 | 1801 | 1800 | 1799 | 1798 | 1797 | 1796 | 1795 | 1794 | 1793 | 1792 | 1791 | 1790 | 1789 | 1788 | 1787 | 1786 | 1785 | 1784 | 1783 | 1782 | 1781 | 1780 | 1779 | 1778 | 1777 | 1776 | 1775 | 1774 | 1773 | 1772 | 1771 | 1770 | 1769 | 1768 | 1767 | 1766 | 1765 | 1764 | 1763 | 1762 | 1761 | 1760 | 1759 | 1758 | 1757 | 1756 | 1755 | 1754 | 1753 | 1752 | 1751 | 1750 | 1749 | 1748 | 1747 | 1746 | 1745 | 1744 | 1743 | 1742 | 1741 | 1740 | 1739 | 1738 | 1737 | 1736 | 1735 | 1734 | 1733 | 1732 | 1731 | 1730 | 1729 | 1728 | 1727 | 1726 | 1725 | 1724 | 1723 | 1722 | 1721 | 1720 | 1719 | 1718 | 1717 | 1716 | 1715 | 1714 | 1713 | 1712 | 1711 | 1710 | 1709 | 1708 | 1707 | 1706 | 1705 | 1704 | 1703 | 1702 | 1701 | 1700 | 1699 | 1698 | 1697 | 1696 | 1695 | 1694 | 1693 | 1692 | 1691 | 1690 | 1689 | 1688 | 1687 | 1686 | 1685 | 1684 | 1683 | 1682 | 1681 | 1680 | 1679 | 1678 | 1677 | 1676 | 1675 | 1674 | 1673 | 1672 | 1671 | 1670 | 1669 | 1668 | 1667 | 1666 | 1665 | 1664 | 1663 | 1662 | 1661 | 1660 | 1659 | 1658 | 1657 | 1656 | 1655 | 1654 | 1653 | 1652 | 1651 | 1650 | 1649 | 1648 | 1647 | 1646 | 1645 | 1644 | 1643 | 1642 | 1641 | 1640 | 1639 | 1638 | 1637 | 1636 | 1635 | 1634 | 1633 | 1632 | 1631 | 1630 | 1629 | 1628 | 1627 | 1626 | 1625 | 1624 | 1623 | 1622 | 1621 | 1620 | 1619 | 1618 | 1617 | 1616 | 1615 | 1614 | 1613 | 1612 | 1611 | 1610 | 1609 | 1608 | 1607 | 1606 | 1605 | 1604 | 1603 | 1602 | 1601 | 1600 | 1599 | 1598 | 1597 | 1596 | 1595 | 1594 | 1593 | 1592 | 1591 | 1590 | 1589 | 1588 | 1587 | 1586 | 1585 | 1584 | 1583 | 1582 | 1581 | 1580 | 1579 | 1578 | 1577 | 1576 | 1575 | 1574 | 1573 | 1572 | 1571 | 1570 | 1569 | 1568 | 1567 | 1566 | 1565 | 1564 | 1563 | 1562 | 1561 | 1560 | 1559 | 1558 | 1557 | 1556 | 1555 | 1554 | 1553 | 1552 | 1551 | 1550 | 1549 | 1548 | 1547 | 1546 | 1545 | 1544 | 1543 | 1542 | 1541 | 1540 | 1539 | 1538 | 1537 | 1536 | 1535 | 1534 | 1533 | 1532 | 1531 | 1530 | 1529 | 1528 | 1527 | 1526 | 1525 | 1524 | 1523 | 1522 | 1521 | 1520 | 1519 | 1518 | 1517 | 1516 | 1515 | 1514 | 1513 | 1512 | 1511 | 1510 | 1509 | 1508 | 1507 | 1506 | 1505 | 1504 | 1503 | 1502 | 1501 | 1500 | 1499 | 1498 | 1497 | 1496 | 1495 | 1494 | 1493 | 1492 | 1491 | 1490 | 1489 | 1488 | 1487 | 1486 | 1485 | 1484 | 1483 | 1482 | 1481 | 1480 | 1479 | 1478 | 1477 | 1476 | 1475 | 1474 | 1473 | 1472 | 1471 | 1470 | 1469 | 1468 | 1467 | 1466 | 1465 | 1464 | 1463 | 1462 | 1461 | 1460 | 1459 | 1458 | 1457 | 1456 | 1455 | 1454 | 1453 | 1452 | 1451 | 1450 | 1449 | 1448 | 1447 | 1446 | 1445 | 1444 | 1443 | 1442 | 1441 | 1440 | 1439 | 1438 | 1437 | 1436 | 1435 | 1434 | 1433 | 1432 | 1431 | 1430 | 1429 | 1428 | 1427 | 1426 | 1425 | 1424 | 1423 | 1422 | 1421 | 1420 | 1419 | 1418 | 1417 | 1416 | 1415 | 1414 | 1413 | 1412 | 1411 | 1410 | 1409 | 1408 | 1407 | 1406 | 1405 | 1404 | 1403 | 1402 | 1401 | 1400 | 1399 | 1398 | 1397 | 1396 | 1395 | 1394 | 1393 | 1392 | 1391 | 1390 | 1389 | 1388 | 1387 | 1386 | 1385 | 1384 | 1383 | 1382 | 1381 | 1380 | 1379 | 1378 | 1377 | 1376 | 1375 | 1374 | 1373 | 1372 | 1371 | 1370 | 1369 | 1368 | 1367 | 1366 | 1365 | 1364 | 1363 | 1362 | 1361 | 1360 | 1359 | 1358 | 1357 | 1356 | 1355 | 1354 | 1353 | 1352 | 1351 | 1350 | 1349 | 1348 | 1347 | 1346 | 1345 | 1344 | 1343 | 1342 | 1341 | 1340 | 1339 | 1338 | 1337 | 1336 | 1335 | 1334 | 1333 | 1332 | 1331 | 1330 | 1329 | 1328 | 1327 | 1326 | 1325 | 1324 | 1323 | 1322 | 1321 | 1320 | 1319 | 1318 | 1317 | 1316 | 1315 | 1314 | 1313 | 1312 | 1311 | 1310 | 1309 | 1308 | 1307 | 1306 | 1305 | 1304 | 1303 | 1302 | 1301 | 1300 | 1299 | 1298 | 1297 | 1296 | 1295 | 1294 | 1293 | 1292 | 1291 | 1290 | 1289 | 1288 | 1287 | 1286 | 1285 | 1284 | 1283 | 1282 | 1281 | 1280 | 1279 | 1278 | 1277 | 1276 | 1275 | 1274 | 1273 | 1272 | 1271 | 1270 | 1269 | 1268 | 1267 | 1266 | 1265 | 1264 | 1263 | 1262 | 1261 | 1260 | 1259 | 1258 | 1257 | 1256 | 1255 | 1254 | 1253 | 1252 | 1251 | 1250 | 1249 | 1248 | 1247 | 1246 | 1245 | 1244 | 1243 | 1242 | 1241 | 1240 | 1239 | 1238 | 1237 | 1236 | 1235 | 1234 | 1233 | 1232 | 1231 | 1230 | 1229 | 1228 | 1227 | 1226 | 1225 | 1224 | 1223 | 1222 | 1221 | 1220 | 1219 | 1218 | 1217 | 1216 | 1215 | 1214 | 1213 | 1212 | 1211 | 1210 | 1209 | 1208 | 1207 | 1206 | 1205 | 1204 | 1203 | 1202 | 1201 | 1200 | 1199 | 1198 | 1197 | 1196 | 1195 | 1194 | 1193 | 1192 | 1191 | 1190 | 1189 | 1188 | 1187 | 1186 | 1185 | 1184 | 1183 | 1182 | 1181 | 1180 | 1179 | 1178 | 1177 | 1176 | 1175 | 1174 | 1173 | 1172 | 1171 | 1170 | 1169 | 1168 | 1167 | 1166 | 1165 | 1164 | 1163 | 1162 | 1161 | 1160 | 1159 | 1158 | 1157 | 1156 | 1155 | 1154 | 1153 | 1152 | 1151 | 1150 | 1149 | 1148 | 1147 | 1146 | 1145 | 1144 | 1143 | 1142 | 1141 | 1140 | 1139 | 1138 | 1137 | 1136 | 1135 | 1134 | 1133 | 1132 | 1131 | 1130 | 1129 | 1128 | 1127 | 1126 | 1125 | 1124 | 1123 | 1122 | 1121 | 1120 | 1119 | 1118 | 1117 | 1116 | 1115 | 1114 | 1113 | 1112 | 1111 | 1110 | 1109 | 1108 | 1107 | 1106 | 1105 | 1104 | 1103 | 1102 | 1101 | 1100 | 1099 | 1098 | 1097 | 1096 | 1095 | 1094 | 1093 | 1092 | 1091 | 1090 | 1089 | 1088 | 1087 | 1086 | 1085 | 1084 | 1083 | 1082 | 1081 | 1080 | 1079 | 1078 | 1077 | 1076 | 1075 | 1074 | 1073 | 1072 | 1071 | 1070 | 1069 | 1068 | 1067 | 1066 | 1065 | 1064 | 1063 | 1062 | 1061 | 1060 | 1059 | 1058 | 1057 | 1056 | 1055 | 1054 | 1053 | 1052 | 1051 | 1050 | 1049 | 1048 | 1047 | 1046 | 1045 | 1044 | 1043 | 1042 | 1041 | 1040 | 1039 | 1038 | 1037 | 1036 | 1035 | 1034 | 1033 | 1032 | 1031 | 1030 | 1029 | 1028 | 1027 | 1026 | 1025 | 1024 | 1023 | 1022 | 1021 | 1020 | 1019 | 1018 | 1017 | 1016 | 1015 | 1014 | 1013 | 1012 | 1011 | 1010 | 1009 | 1008 | 1007 | 1006 | 1005 | 1004 | 1003 | 1002 | 1001 | 1000 | 999 | 998 | 997 | 996 | 995 | 994 | 993 | 992 | 991 | 990 | 989 | 988 | 987 | 986 | 985 | 984 | 983 | 982 | 981 | 980 | 979 | 978 | 977 | 976 | 975 | 974 | 973 | 972 | 971 | 970 | 969 | 968 | 967 | 966 | 965 | 964 | 963 | 962 | 961 | 960 | 959 | 958 | 957 | 956 | 955 | 954 | 953 | 952 | 951 | 950 | 949 | 948 | 947 | 946 | 945 | 944 | 943 | 942 | 941 | 940 | 939 | 938 | 937 | 936 | 935 | 934 | 933 | 932 | 931 | 930 | 929 | 928 | 927 | 926 | 925 | 924 | 923 | 922 | 921 | 920 | 919 | 918 | 917 | 916 | 915 | 914 | 913 | 912 | 911 | 910 | 909 | 908 | 907 | 906 | 905 | 904 | 903 | 902 | 901 | 900 | 899 | 898 | 897 | 896 | 895 | 894 | 893 | 892 | 891 | 890 | 889 | 888 | 887 | 886 | 885 | 884 | 883 | 882 | 881 | 880 | 879 | 878 | 877 | 876 | 875 | 874 | 873 | 872 | 871 | 870 | 869 | 868 | 867 | 866 | 865 | 864 | 863 | 862 | 861 | 860 | 859 | 858 | 857 | 856 | 855 | 854 | 853 | 852 | 851 | 850 | 849 | 848 | 847 | 846 | 845 | 844 | 843 | 842 | 841 | 840 | 839 | 838 | 837 | 836 | 835 | 834 | 833 | 832 | 831 | 830 | 829 | 828 | 827 | 826 | 825 | 824 | 823 | 822 | 821 | 820 | 819 | 818 | 817 | 816 | 815 | 814 | 813 | 812 | 811 | 810 | 809 | 808 | 807 | 806 | 805 | 804 | 803 | 802 | 801 | 800 | 799 | 798 | 797 | 796 | 795 | 794 | 793 | 792 | 791 | 790 | 789 | 788 | 787 | 786 | 785 | 784 | 783 | 782 | 781 | 780 | 779 | 778 | 777 | 776 | 775 | 774 | 773 | 772 | 771 | 770 | 769 | 768 | 767 | 766 | 765 | 764 | 763 | 762 | 761 | 760 | 759 | 758 | 757 | 756 | 755 | 754 | 753 | 752 | 751 | 750 | 749 | 748 | 747 | 746 | 745 | 744 | 743 | 742 | 741 | 740 | 739 | 738 | 737 | 736 | 735 | 734 | 733 | 732 | 731 | 730 | 729 | 728 | 727 | 726 | 725 | 724 | 723 | 722 | 721 | 720 | 719 | 718 | 717 | 716 | 715 | 714 | 713 | 712 | 711 | 710 | 709 | 708 | 707 | 706 | 705 | 704 | 703 | 702 | 701 | 700 | 699 | 698 | 697 | 696 | 695 | 694 | 693 | 692 | 691 | 690 | 689 | 688 | 687 | 686 | 685 | 684 | 683 | 682 | 681 | 680 | 679 | 678 | 677 | 676 | 675 | 674 | 673 | 672 | 671 | 670 | 669 | 668 | 667 | 666 | 665 | 664 | 663 | 662 | 661 | 660 | 659 | 658 | 657 | 656 | 655 | 654 | 653 | 652 | 651 | 650 | 649 | 648 | 647 | 646 | 645 | 644 | 643 | 642 | 641 | 640 | 639 | 638 | 637 | 636 | 635 | 634 | 633 | 632 | 631 | 630 | 629 | 628 | 627 | 626 | 625 | 624 | 623 | 622 | 621 | 620 | 619 | 618 | 617 | 616 | 615 | 614 | 613 | 612 | 611 | 610 | 609 | 608 | 607 | 606 | 605 | 604 | 603 | 602 | 601 | 600 | 599 | 598 | 597 | 596 | 595 | 594 |
|------------|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-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CURRENCIES, MONEY AND CAPITAL MARKETS

FOREIGN EXCHANGES

Dollar rally short lived

THE DOLLAR yesterday regained some of the ground it had lost against the D-Mark in recent days, rising to a peak of DM1.6250 against the German currency, but the rally proved to be short-lived, writes James Blyth.

Last week's poor-than-expected non-farm payroll figure helped to push the dollar down to a close of DM1.6120 on Monday night. Yesterday morning in Europe, the US currency regained some lost ground as dealers took profits in the wake of the hefty move downwards in recent days.

But the dollar was later unsettled after the Bundesbank announced that it was setting a fixed rate repo in its money market operations at 6.80 per cent, unchanged from the previous week. The Bundesbank's move suggested that monetary policy will remain tight at its council meeting this week, and the dollar closed at DM1.6105, down nearly a quarter pence on the day.

Dealers have not given up all hope that the Bundesbank will reduce the discount rate at its council meeting tomorrow, although such a move has barely been discounted by dealers.

But one factor which may

have pushed the Bundesbank council in the direction of "no change" in the discount rate was better than expected figures for German GDP.

This rose a real, seasonally adjusted 0.5 per cent in the second quarter from the first quarter for a year-on-year decline of 1.9 per cent. Economists had predicted that the year-on-year decline would be in the order of 2.6 per cent.

However, Mr Richard Segal, international bond market analyst at Technical Data in London said: "Closer examination of the figures shows that, by sector, most categories of final demand declined. This suggests that the economy is poorly placed to grow in the future."

Despite the Bundesbank's move, European currencies performed a little more strongly against the D-Mark. The French franc closed at FF3.519 from a previous

FF3.538 and the Belgian franc was almost unchanged at BF3.263. Sterling also performed strongly against the D-Mark, closing at DM2.4850 from a previous DM2.4625.

In the last two weeks, sterling has come under consistent pressure against the D-Mark and the dollar. Mr Jeremy Hawkins, economic adviser at Bank of America in London, says it is surprising, bearing in mind that the fundamental reasons for sterling strength are strong, recent economic data have been better than expected and the money markets are not discounting an imminent cut in interest rates.

He believes that one of the main causes of sterling weakness may have been that central banks have been selling sterling to buy D-Marks in order to repay the Bundesbank for recent intervention.

| EUROPEAN CURRENCY UNIT RATES | | | | | | | | | |
|------------------------------|---------|--------|----------|----------|-----------|------|------|------|------|
| | Unit | Rate | % Change | % Spread | Overnight | 1m | 3m | 6m | 12m |
| Deutsche Mark | 1.0000 | 1.0000 | - | - | - | - | - | - | - |
| French Franc | 6.5596 | 1.6603 | -0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |
| Italian Lira | 2036.27 | 1.366 | -0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |
| Spanish Peseta | 166.64 | 1.666 | -0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |
| Portuguese Escudo | 200.48 | 1.666 | -0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |
| Belgian Franc | 36.363 | 1.666 | -0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |
| Dutch Guilder | 3.7603 | 1.666 | -0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |
| Swiss Franc | 7.2036 | 1.666 | -0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |

| POUND SPOT - FORWARD AGAINST THE POUND | | | | | | | | | |
|--|---------|--------|----------|----------|-----------|------|------|------|------|
| | Unit | Rate | % Change | % Spread | Overnight | 1m | 3m | 6m | 12m |
| Deutsche Mark | 1.0000 | 1.6105 | -0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |
| French Franc | 6.5596 | 1.6603 | -0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |
| Italian Lira | 2036.27 | 1.366 | -0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |
| Spanish Peseta | 166.64 | 1.666 | -0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |
| Portuguese Escudo | 200.48 | 1.666 | -0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |
| Belgian Franc | 36.363 | 1.666 | -0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |
| Dutch Guilder | 3.7603 | 1.666 | -0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |
| Swiss Franc | 7.2036 | 1.666 | -0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |

| DOLLAR SPOT - FORWARD AGAINST THE DOLLAR | | | | | | | | | |
|--|---------|--------|----------|----------|-----------|------|------|------|------|
| | Unit | Rate | % Change | % Spread | Overnight | 1m | 3m | 6m | 12m |
| Deutsche Mark | 1.0000 | 1.6105 | -0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |
| French Franc | 6.5596 | 1.6603 | -0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |
| Italian Lira | 2036.27 | 1.366 | -0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |
| Spanish Peseta | 166.64 | 1.666 | -0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |
| Portuguese Escudo | 200.48 | 1.666 | -0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |
| Belgian Franc | 36.363 | 1.666 | -0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |
| Dutch Guilder | 3.7603 | 1.666 | -0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |
| Swiss Franc | 7.2036 | 1.666 | -0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |

| CURRENCY MOVEMENTS | | | | | | | | | |
|--------------------|---------|--------|----------|----------|-----------|------|------|------|------|
| | Unit | Rate | % Change | % Spread | Overnight | 1m | 3m | 6m | 12m |
| Deutsche Mark | 1.0000 | 1.6105 | -0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |
| French Franc | 6.5596 | 1.6603 | -0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |
| Italian Lira | 2036.27 | 1.366 | -0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |
| Spanish Peseta | 166.64 | 1.666 | -0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |
| Portuguese Escudo | 200.48 | 1.666 | -0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |
| Belgian Franc | 36.363 | 1.666 | -0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |
| Dutch Guilder | 3.7603 | 1.666 | -0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |
| Swiss Franc | 7.2036 | 1.666 | -0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |

| EURO-CURRENCY INTEREST RATES | | | | | | | | | |
|------------------------------|---------|--------|----------|----------|-----------|------|------|------|------|
| | Unit | Rate | % Change | % Spread | Overnight | 1m | 3m | 6m | 12m |
| Deutsche Mark | 1.0000 | 1.6105 | -0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |
| French Franc | 6.5596 | 1.6603 | -0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |
| Italian Lira | 2036.27 | 1.366 | -0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |
| Spanish Peseta | 166.64 | 1.666 | -0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |
| Portuguese Escudo | 200.48 | 1.666 | -0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |
| Belgian Franc | 36.363 | 1.666 | -0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |
| Dutch Guilder | 3.7603 | 1.666 | -0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |
| Swiss Franc | 7.2036 | 1.666 | -0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |

| EXCHANGE OFFER RATES | | | | | | | | | |
|----------------------|---------|--------|----------|----------|-----------|------|------|------|------|
| | Unit | Rate | % Change | % Spread | Overnight | 1m | 3m | 6m | 12m |
| Deutsche Mark | 1.0000 | 1.6105 | -0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |
| French Franc | 6.5596 | 1.6603 | -0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |
| Italian Lira | 2036.27 | 1.366 | -0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |
| Spanish Peseta | 166.64 | 1.666 | -0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |
| Portuguese Escudo | 200.48 | 1.666 | -0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |
| Belgian Franc | 36.363 | 1.666 | -0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |
| Dutch Guilder | 3.7603 | 1.666 | -0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |
| Swiss Franc | 7.2036 | 1.666 | -0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |

| POUND - DOLLAR | | | | | | | | | |
|-------------------|---------|--------|----------|----------|-----------|------|------|------|------|
| | Unit | Rate | % Change | % Spread | Overnight | 1m | 3m | 6m | 12m |
| Deutsche Mark | 1.0000 | 1.6105 | -0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |
| French Franc | 6.5596 | 1.6603 | -0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |
| Italian Lira | 2036.27 | 1.366 | -0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |
| Spanish Peseta | 166.64 | 1.666 | -0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |
| Portuguese Escudo | 200.48 | 1.666 | -0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |
| Belgian Franc | 36.363 | 1.666 | -0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |
| Dutch Guilder | 3.7603 | 1.666 | -0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |
| Swiss Franc | 7.2036 | 1.666 | -0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |

| FT LONDON INTERBANK FDXING | | | | | | | | | |
|----------------------------|---------|--------|----------|----------|-----------|------|------|------|------|
| | Unit | Rate | % Change | % Spread | Overnight | 1m | 3m | 6m | 12m |
| Deutsche Mark | 1.0000 | 1.6105 | -0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |
| French Franc | 6.5596 | 1.6603 | -0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |
| Italian Lira | 2036.27 | 1.366 | -0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |
| Spanish Peseta | 166.64 | 1.666 | -0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |
| Portuguese Escudo | 200.48 | 1.666 | -0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |
| Belgian Franc | 36.363 | 1.666 | -0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |
| Dutch Guilder | 3.7603 | 1.666 | -0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |
| Swiss Franc | 7.2036 | 1.666 | -0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |

| MONEY RATES | | | | | | | | | |
|-------------------|---------|--------|----------|----------|-----------|------|------|------|------|
| | Unit | Rate | % Change | % Spread | Overnight | 1m | 3m | 6m | 12m |
| Deutsche Mark | 1.0000 | 1.6105 | -0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |
| French Franc | 6.5596 | 1.6603 | -0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |
| Italian Lira | 2036.27 | 1.366 | -0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |
| Spanish Peseta | 166.64 | 1.666 | -0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |
| Portuguese Escudo | 200.48 | 1.666 | -0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |
| Belgian Franc | 36.363 | 1.666 | -0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |
| Dutch Guilder | 3.7603 | 1.666 | -0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |
| Swiss Franc | 7.2036 | 1.666 | -0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |

| LONDON MONEY RATES | | | | | | | | | |
|--------------------|---------|--------|----------|----------|-----------|------|------|------|------|
| | Unit | Rate | % Change | % Spread | Overnight | 1m | 3m | 6m | 12m |
| Deutsche Mark | 1.0000 | 1.6105 | -0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |
| French Franc | 6.5596 | 1.6603 | -0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |
| Italian Lira | 2036.27 | 1.366 | -0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |
| Spanish Peseta | 166.64 | 1.666 | -0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |
| Portuguese Escudo | 200.48 | 1.666 | -0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |
| Belgian Franc | 36.363 | 1.666 | -0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |
| Dutch Guilder | 3.7603 | 1.666 | -0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |
| Swiss Franc | 7.2036 | 1.666 | -0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |

| FT LONDON INTERBANK FDXING | | | | | | | | | |
|----------------------------|---------|--------|----------|----------|-----------|------|------|------|------|
| | Unit | Rate | % Change | % Spread | Overnight | 1m | 3m | 6m | 12m |
| Deutsche Mark | 1.0000 | 1.6105 | -0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |
| French Franc | 6.5596 | 1.6603 | -0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |
| Italian Lira | 2036.27 | 1.366 | -0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |
| Spanish Peseta | 166.64 | 1.666 | -0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |
| Portuguese Escudo | 200.48 | 1.666 | -0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |
| Belgian Franc | 36.363 | 1.666 | -0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |
| Dutch Guilder | 3.7603 | 1.666 | -0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |
| Swiss Franc | 7.2036 | 1.666 | -0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |

| | | |
|---------|--|-----------------------|
| changed | FT LONDON INT | |
| | (11.00 a.m. Sep 7) 3 months US dollars | |
| | bid 3 $\frac{1}{2}$ | offer 3 $\frac{3}{4}$ |
| | | |

| Sales | | | | Stocks | | | | | | |
|--------|-----------|--------|--------|--------|--------|--------|------------|--------|--------|--------|
| High | Low | Close | High | Low | Close | High | Low | | | |
| 4250 | Lumen Lux | 30 1/2 | 31 1/2 | 31 1/2 | 31 1/2 | 757165 | Borgon Co | 83 1/2 | 84 1/2 | 85 |
| 8800 | Labor | 82 1/2 | 84 | 84 1/2 | 85 1/2 | 6750 | Boards Co | 5 1/2 | 5 1/2 | 6 1/2 |
| 133835 | MacDonald | 91 1/2 | 94 | 94 1/2 | 95 1/2 | 155125 | Stockton A | 5 1/2 | 5 1/2 | 6 1/2 |
| 721410 | Marine | 10 1/2 | 11 1/2 | 11 1/2 | 11 1/2 | 14798 | Sherrill G | 8 1/2 | 8 1/2 | 9 1/2 |
| 3025 | Mega Life | 17 1/2 | 18 1/2 | 18 1/2 | 18 1/2 | 5161 | Sherrill S | 10 1/2 | 10 1/2 | 11 1/2 |
| 3025 | Mega Life | 17 1/2 | 18 1/2 | 18 1/2 | 18 1/2 | 19125 | Sherrill S | 10 1/2 | 10 1/2 | 11 1/2 |
| 226965 | Mark Inc | 11 1/2 | 11 1/2 | 11 1/2 | 11 1/2 | 65500 | Sovereign | 20 | 20 | 21 |
| 53544 | MCC | 11 1/2 | 11 1/2 | 11 1/2 | 11 1/2 | 18762 | Sparto A | 5 1/2 | 5 1/2 | 6 1/2 |
| 53544 | MCC | 11 1/2 | 11 1/2 | 11 1/2 | 11 1/2 | 68308 | Stacy | 4 1/2 | 4 1/2 | 5 1/2 |
| 53544 | MCC | 11 1/2 | 11 1/2 | 11 1/2 | 11 1/2 | 322643 | Talmon | 83 1/2 | 84 1/2 | 85 1/2 |
| 53544 | MCC | 11 1/2 | 11 1/2 | 11 1/2 | 11 1/2 | 102020 | Tack B | 15 1/2 | 16 1/2 | 16 1/2 |
| 53544 | MCC | 11 1/2 | 11 1/2 | 11 1/2 | 11 1/2 | 2952 | Talmon | 83 1/2 | 84 1/2 | 85 1/2 |
| 105950 | McIntyre | 91 1/2 | 94 | 94 1/2 | 95 1/2 | 117257 | Tack B | 15 1/2 | 16 1/2 | 16 1/2 |
| 5354 | MCC | 11 1/2 | 11 1/2 | 11 1/2 | 11 1/2 | 84344 | Thompson | 15 1/2 | 16 1/2 | 16 1/2 |
| 5354 | MCC | 11 1/2 | 11 1/2 | 11 1/2 | 11 1/2 | 67188 | Tor Don | 83 1/2 | 84 1/2 | 85 1/2 |
| 5354 | MCC | 11 1/2 | 11 1/2 | 11 1/2 | 11 1/2 | 14518 | Transter P | 82 1/2 | 83 1/2 | 84 1/2 |
| 5354 | MCC | 11 1/2 | 11 1/2 | 11 1/2 | 11 1/2 | 17445 | Transter P | 82 1/2 | 83 1/2 | 84 1/2 |
| 216800 | Mercho | 34 | 35 | 35 1/2 | 36 1/2 | 15850 | Transter P | 82 1/2 | 83 1/2 | 84 1/2 |
| 50817 | Mid Can | 81 1/2 | 82 1/2 | 83 1/2 | 84 1/2 | 26255 | Unifund | 17 1/2 | 17 1/2 | 18 1/2 |
| 8838 | Nail Bros | 10 1/2 | 10 1/2 | 10 1/2 | 10 1/2 | 7250 | UAP A | 5 1/2 | 5 1/2 | 6 1/2 |
| 23740 | Nail Bros | 10 1/2 | 10 1/2 | 10 1/2 | 10 1/2 | 47745 | Vico R | 81 1/2 | 82 1/2 | 83 1/2 |
| 23740 | Nail Bros | 10 1/2 | 10 1/2 | 10 1/2 | 10 1/2 | 8240 | Waco | 30 1/2 | 30 1/2 | 31 1/2 |
| 118254 | Norcan | 81 1/2 | 82 1/2 | 83 1/2 | 84 1/2 | 1825 | Waco | 30 1/2 | 30 1/2 | 31 1/2 |
| 118254 | Norcan | 81 1/2 | 82 1/2 | 83 1/2 | 84 1/2 | 105950 | Waco R | 81 1/2 | 82 1/2 | 83 1/2 |
| 24824 | Nat Hld | 53 1/2 | 54 1/2 | 55 1/2 | 56 1/2 | 47745 | Vico R | 81 1/2 | 82 1/2 | 83 1/2 |
| 36751 | Nat Hld | 53 1/2 | 54 1/2 | 55 1/2 | 56 1/2 | 8240 | Waco | 30 1/2 | 30 1/2 | 31 1/2 |
| 72721 | Nat Hld | 53 1/2 | 54 1/2 | 55 1/2 | 56 1/2 | 1825 | Waco | 30 1/2 | 30 1/2 | 31 1/2 |
| 53609 | Nat Hld | 53 1/2 | 54 1/2 | 55 1/2 | 56 1/2 | 105950 | Waco R | 81 1/2 | 82 1/2 | 83 1/2 |
| 53609 | Nat Hld | 53 1/2 | 54 1/2 | 55 1/2 | 56 1/2 | 47745 | Vico R | 81 1/2 | 82 1/2 | 83 1/2 |
| 53609 | Nat Hld | 53 1/2 | 54 1/2 | 55 1/2 | 56 1/2 | 8240 | Waco | 30 1/2 | 30 1/2 | 31 1/2 |
| 53609 | Nat Hld | 53 1/2 | 54 1/2 | 55 1/2 | 56 1/2 | 1825 | Waco | 30 1/2 | 30 1/2 | 31 1/2 |
| 53609 | Nat Hld | 53 1/2 | 54 1/2 | 55 1/2 | 56 1/2 | 105950 | Waco R | 81 1/2 | 82 1/2 | 83 1/2 |
| 53609 | Nat Hld | 53 1/2 | 54 1/2 | 55 1/2 | 56 1/2 | 47745 | Vico R | 81 1/2 | 82 1/2 | 83 1/2 |
| 53609 | Nat Hld | 53 1/2 | 54 1/2 | 55 1/2 | 56 1/2 | 8240 | Waco | 30 1/2 | 30 1/2 | 31 1/2 |
| 53609 | Nat Hld | 53 1/2 | 54 1/2 | 55 1/2 | 56 1/2 | 1825 | Waco | 30 1/2 | 30 1/2 | 31 1/2 |
| 53609 | Nat Hld | 53 1/2 | 54 1/2 | 55 1/2 | 56 1/2 | 105950 | Waco R | 81 1/2 | 82 1/2 | 83 1/2 |
| 53609 | Nat Hld | 53 1/2 | 54 1/2 | 55 1/2 | 56 1/2 | 47745 | Vico R | 81 1/2 | 82 1/2 | 83 1/2 |
| 53609 | Nat Hld | 53 1/2 | 54 1/2 | 55 1/2 | 56 1/2 | 8240 | Waco | 30 1/2 | 30 1/2 | 31 1/2 |
| 53609 | Nat Hld | 53 1/2 | 54 1/2 | 55 1/2 | 56 1/2 | 1825 | Waco | 30 1/2 | 30 1/2 | 31 1/2 |
| 53609 | Nat Hld | 53 1/2 | 54 1/2 | 55 1/2 | 56 1/2 | 105950 | Waco R | 81 1/2 | 82 1/2 | 83 1/2 |
| 53609 | Nat Hld | 53 1/2 | 54 1/2 | 55 1/2 | 56 1/2 | 47745 | Vico R | 81 1/2 | 82 1/2 | 83 1/2 |
| 53609 | Nat Hld | 53 1/2 | 54 1/2 | 55 1/2 | 56 1/2 | 8240 | Waco | 30 1/2 | 30 1/2 | 31 1/2 |
| 53609 | Nat Hld | 53 1/2 | 54 1/2 | 55 1/2 | 56 1/2 | 1825 | Waco | 30 1/2 | 30 1/2 | 31 1/2 |
| 53609 | Nat Hld | 53 1/2 | 54 1/2 | 55 1/2 | 56 1/2 | 105950 | Waco R | 81 1/2 | 82 1/2 | 83 1/2 |
| 53609 | Nat Hld | 53 1/2 | 54 1/2 | 55 1/2 | 56 1/2 | 47745 | Vico R | 81 1/2 | 82 1/2 | 83 1/2 |
| 53609 | Nat Hld | 53 1/2 | 54 1/2 | 55 1/2 | 56 1/2 | 8240 | Waco | 30 1/2 | 30 1/2 | 31 1/2 |
| 53609 | Nat Hld | 53 1/2 | 54 1/2 | 55 1/2 | 56 1/2 | 1825 | Waco | 30 1/2 | 30 1/2 | 31 1/2 |
| 53609 | Nat Hld | 53 1/2 | 54 1/2 | 55 1/2 | 56 1/2 | 105950 | Waco R | 81 1/2 | 82 1/2 | 83 1/2 |
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| 53609 | Nat Hld | 53 1/2 | 54 1/2 | 55 1/2 | 56 1/2 | 1825 | Waco | 30 1/2 | 30 1/2 | 31 1/2 |
| 53609 | Nat Hld | 53 1/2 | 54 1/2 | 55 1/2 | 56 1/2 | 105950 | Waco R | 81 1/2 | 82 1/2 | 83 1/2 |
| 53609 | Nat Hld | 53 1/2 | 54 1/2 | 55 1/2 | 56 1/2 | 47745 | Vico R | 81 1/2 | 82 1/2 | 83 1/2 |
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| 53609 | Nat Hld | 53 1/2 | 54 1/2 | 55 1/2 | 56 1/2 | 105950 | Waco R | 81 1/2 | 82 1/2 | 83 1/2 |
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| 53609 | Nat Hld | 53 1/2 | 54 1/2 | 55 1/2 | 56 1/2 | 1825 | Waco | 30 1/2 | 30 1/2 | 31 1/2 |
| 53609 | Nat Hld | 53 1/2 | 54 1/2 | 55 1/2 | 56 1/2 | 105950 | Waco R | 81 1/2 | 82 1/2 | 83 1/2 |
| 53609 | Nat Hld | 53 1/2 | 54 1/2 | 55 1/2 | 56 1/2 | 47745 | Vico R | 81 1/2 | 82 1/2 | 83 1/2 |
| 53609 | Nat Hld | 53 1/2 | 54 1/2 | 55 1/2 | 56 1/2 | 8240 | Waco | 30 1/2 | 30 1/2 | 31 1/2 |
| 53609 | Nat Hld | 53 1/2 | 54 1/2 | 55 1/2 | 56 1/2 | 1825 | Waco | 30 1/2 | 30 1/2 | 31 1/2 |
| 53609 | Nat Hld | 53 1/2 | 54 1/2 | 55 1/2 | 56 1/2 | 105950 | Waco R | 81 1/2 | 82 1/2 | 83 1/2 |
| 53609 | Nat Hld | 53 1/2 | 54 1/2 | 55 1/2 | 56 1/2 | 47745 | Vico R | 81 1/2 | 82 1/2 | 83 1/2 |
| 53609 | Nat Hld | 53 1/2 | 54 1/2 | 55 1/2 | 56 1/2 | 8240 | Waco | 30 1/2 | 30 1/2 | 31 1/2 |
| 53609 | Nat Hld | 53 1/2 | 54 1/2 | 55 1/2 | 56 1/2 | 1825 | Waco | 30 1/2 | 30 1/2 | 31 1/2 |
| 53609 | Nat Hld | 53 1/2 | 54 1/2 | 55 1/2 | 56 1/2 | 105950 | Waco R | 81 1/2 | 82 1/2 | 83 1/2 |
| 53609 | Nat Hld | 53 1/2 | 54 1/2 | 55 1/2 | 56 1/2 | 47745 | Vico R | 81 1/2 | 82 1/2 | 83 1/2 |
| 53609 | Nat Hld | 53 1/2 | 54 1/2 | 55 1/2 | 56 1/2 | 8240 | Waco | 30 1/2 | 30 1/2 | 31 1/2 |
| 53609 | Nat Hld | 53 1/2 | 54 1/2 | 55 1/2 | 56 1/2 | 1825 | Waco | 30 1/2 | 30 1/2 | 31 1/2 |
| 53609 | Nat Hld | 53 1/2 | 54 1/2 | 55 1/2 | 56 1/2 | 105950 | Waco R | 81 1/2 | 82 1/2 | 83 1/2 |
| 53609 | Nat Hld | 53 1/2 | 54 1/2 | 55 1/2 | 56 1/2 | 47745 | Vico R | 81 1/2 | 82 1/2 | 83 1/2 |
| 53609 | Nat Hld | 53 1/2 | 54 1/2 | 55 1/2 | 56 1/2 | 8240 | Waco | 30 1/2 | 30 1/2 | 31 1/2 |
| 53609 | Nat Hld | 53 1/2 | 54 1/2 | 55 1/2 | 56 1/2 | 1825 | Waco | 30 1/2 | 30 1/2 | 31 1/2 |
| 53609 | Nat Hld | 53 1/2 | 54 1/2 | 55 1/2 | 56 1/2 | 105950 | Waco R | 81 1/2 | 82 1/2 | 83 1/2 |
| 53609 | Nat Hld | 53 1/2 | 54 1/2 | 55 1/2 | 56 1/2 | 47745 | Vico R | 81 1/2 | 82 1/2 | 83 1/2 |
| 53609 | Nat Hld | 53 1/2 | 54 1/2 | 55 1/2 | 56 1/2 | 8240 | Waco | 30 1/2 | 30 1/2 | 31 1/2 |
| 53609 | Nat Hld | 53 1/2 | 54 1/2 | 55 1/2 | 56 1/2 | 1825 | Waco | 30 1/2 | 30 1/2 | 31 1/2 |
| 53609 | Nat Hld | 53 1/2 | 54 1/2 | 55 1/2 | 56 1/2 | 105950 | Waco R | 81 1/2 | 82 1/2 | 83 1/2 |
| 53609 | Nat Hld | 53 1/2 | 54 1/2 | 55 1/2 | 56 1/2 | 47745 | Vico R | 81 1/2 | 82 1/2 | 83 1/2 |
| 53609 | Nat Hld | 53 1/2 | 54 1/2 | 55 1/2 | 56 1/2 | 8240 | Waco | 30 1/2 | 30 1/2 | 31 1/2 |
| 53609 | Nat Hld | 53 1/2 | 54 1/2 | 55 1/2 | 56 1/2 | 1825 | Waco | 30 1/2 | 30 1/2 | 31 1/2 |
| 53609 | Nat Hld | 53 1/2 | 54 1/2 | 55 1/2 | 56 1/2 | 105950 | Waco R | 81 1/2 | 82 1/2 | 83 1/2 |
| 53609 | Nat Hld | 53 1/2 | 54 1/2 | 55 1/2 | 56 1/2 | 47745 | Vico R | 81 1/2 | 82 1/2 | 83 1/2 |
| 53609 | Nat Hld | 53 1/2 | 54 1/2 | 55 1/2 | 56 1/2 | 8240 | Waco | 30 1/2 | 30 1/2 | 31 1/2 |
| 53609 | Nat Hld | 53 1/2 | 54 1/2 | 55 1/2 | 56 1/2 | 1825 | Waco | 30 1/2 | 30 1/2 | 31 1/2 |
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| 53609 | Nat Hld | 53 1/2 | 54 1/2 | 55 1/2 | 56 1/2 | 105950 | Waco R | 81 1/2 | 82 1/2 | 83 1/2 |
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| 53609 | Nat Hld | 53 1/2 | 54 1/2 | 55 1/2 | 56 1/2 | 8240 | Waco | 30 1/2 | 30 1/2 | 31 1/2 |
| 53609 | Nat Hld | 53 1/2 | 54 1/2 | 55 1/2 | 56 1/2 | 1825 | Waco | 30 1/2 | 30 1/2 | 31 1/2 |
| 53609 | Nat Hld | 53 1/2 | 54 1/2 | 55 1/2 | 56 1/2 | 105950 | Waco R | 81 1/2 | 82 1/2 | 83 1/2 |
| 53609 | Nat Hld | 53 1/2 | 54 1/2 | 55 1/2 | 56 1/2 | 47745 | Vico R | 81 1/2 | 82 1/2 | 83 1/2 |
| 53609 | Nat Hld | 53 1/2 | 54 1/2 | 55 1/2 | 56 1/2 | 8240 | Waco | 30 1/2 | 30 1/2 | 31 1/2 |
| 53609 | Nat Hld | 53 1/2 | 54 1/2 | 55 1/2 | 56 1/2 | 1825 | Waco | | | |

[illegible]

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| Rank | Team | W | L | T | P | PTS | Diff | W | L | T | P | PTS | Diff |
|------|---------|----|----|---|---|-----|------|----|----|---|---|-----|------|
| 1 | 1991-92 | 10 | 0 | 0 | 0 | 30 | 0 | 10 | 0 | 0 | 0 | 30 | 0 |
| 2 | 1992-93 | 9 | 1 | 0 | 0 | 27 | 3 | 9 | 1 | 0 | 0 | 27 | 3 |
| 3 | 1993-94 | 8 | 2 | 0 | 0 | 24 | 6 | 8 | 2 | 0 | 0 | 24 | 6 |
| 4 | 1994-95 | 7 | 3 | 0 | 0 | 21 | 9 | 7 | 3 | 0 | 0 | 21 | 9 |
| 5 | 1995-96 | 6 | 4 | 0 | 0 | 18 | 12 | 6 | 4 | 0 | 0 | 18 | 12 |
| 6 | 1996-97 | 5 | 5 | 0 | 0 | 15 | 15 | 5 | 5 | 0 | 0 | 15 | 15 |
| 7 | 1997-98 | 4 | 6 | 0 | 0 | 12 | 18 | 4 | 6 | 0 | 0 | 12 | 18 |
| 8 | 1998-99 | 3 | 7 | 0 | 0 | 9 | 21 | 3 | 7 | 0 | 0 | 9 | 21 |
| 9 | 1999-00 | 2 | 8 | 0 | 0 | 6 | 24 | 2 | 8 | 0 | 0 | 6 | 24 |
| 10 | 2000-01 | 1 | 9 | 0 | 0 | 3 | 27 | 1 | 9 | 0 | 0 | 3 | 27 |
| 11 | 2001-02 | 0 | 10 | 0 | 0 | 0 | 30 | 0 | 10 | 0 | 0 | 0 | 30 |
| 12 | 2002-03 | 0 | 10 | 0 | 0 | 0 | 30 | 0 | 10 | 0 | 0 | 0 | 30 |
| 13 | 2003-04 | 0 | 10 | 0 | 0 | 0 | 30 | 0 | 10 | 0 | 0 | 0 | 30 |
| 14 | 2004-05 | 0 | 10 | 0 | 0 | 0 | 30 | 0 | 10 | 0 | 0 | 0 | 30 |
| 15 | 2005-06 | 0 | 10 | 0 | 0 | 0 | 30 | 0 | 10 | 0 | 0 | 0 | 30 |
| 16 | 2006-07 | 0 | 10 | 0 | 0 | 0 | 30 | 0 | 10 | 0 | 0 | 0 | 30 |
| 17 | 2007-08 | 0 | 10 | 0 | 0 | 0 | 30 | 0 | 10 | 0 | 0 | 0 | 30 |
| 18 | 2008-09 | 0 | 10 | 0 | 0 | 0 | 30 | 0 | 10 | 0 | 0 | 0 | 30 |
| 19 | 2009-10 | 0 | 10 | 0 | 0 | 0 | 30 | 0 | 10 | 0 | 0 | 0 | 30 |
| 20 | 2010-11 | 0 | 10 | 0 | 0 | 0 | 30 | 0 | 10 | 0 | 0 | 0 | 30 |
| 21 | 2011-12 | 0 | 10 | 0 | 0 | 0 | 30 | 0 | 10 | 0 | 0 | 0 | 30 |
| 22 | 2012-13 | 0 | 10 | 0 | 0 | 0 | 30 | 0 | 10 | 0 | 0 | 0 | 30 |
| 23 | 2013-14 | 0 | 10 | 0 | 0 | 0 | 30 | 0 | 10 | 0 | 0 | 0 | 30 |
| 24 | 2014-15 | 0 | 10 | 0 | 0 | 0 | 30 | 0 | 10 | 0 | 0 | 0 | 30 |
| 25 | 2015-16 | 0 | 10 | 0 | 0 | 0 | 30 | 0 | 10 | 0 | 0 | 0 | 30 |
| 26 | 2016-17 | 0 | 10 | 0 | 0 | 0 | 30 | 0 | 10 | 0 | 0 | 0 | 30 |
| 27 | 2017-18 | 0 | 10 | 0 | 0 | 0 | 30 | 0 | 10 | 0 | 0 | 0 | 30 |
| 28 | 2018-19 | 0 | 10 | 0 | 0 | 0 | 30 | 0 | 10 | 0 | 0 | 0 | 30 |
| 29 | 2019-20 | 0 | 10 | 0 | 0 | 0 | 30 | 0 | 10 | 0 | 0 | 0 | 30 |
| 30 | 2020-21 | 0 | 10 | 0 | 0 | 0 | 30 | 0 | 10 | 0 | 0 | 0 | 30 |
| 31 | 2021-22 | 0 | 10 | 0 | 0 | 0 | 30 | 0 | 10 | 0 | 0 | 0 | 30 |
| 32 | 2022-23 | 0 | 10 | 0 | 0 | 0 | 30 | 0 | 10 | 0 | 0 | 0 | 30 |
| 33 | 2023-24 | 0 | 10 | 0 | 0 | 0 | 30 | 0 | 10 | 0 | 0 | 0 | 30 |
| 34 | 2024-25 | 0 | 10 | 0 | 0 | 0 | 30 | 0 | 10 | 0 | 0 | 0 | 30 |
| 35 | 2025-26 | 0 | 10 | 0 | 0 | 0 | 30 | 0 | 10 | 0 | 0 | 0 | 30 |
| 36 | 2026-27 | 0 | 10 | 0 | 0 | 0 | 30 | 0 | 10 | 0 | 0 | 0 | 30 |
| 37 | 2027-28 | 0 | 10 | 0 | 0 | 0 | 30 | 0 | 10 | 0 | 0 | 0 | 30 |
| 38 | 2028-29 | 0 | 10 | 0 | 0 | 0 | 30 | 0 | 10 | 0 | 0 | 0 | 30 |
| 39 | 2029-30 | 0 | 10 | 0 | 0 | 0 | 30 | 0 | 10 | 0 | 0 | 0 | 30 |
| 40 | 2030-31 | 0 | 10 | 0 | 0 | 0 | 30 | 0 | 10 | 0 | 0 | 0 | 30 |
| 41 | 2031-3 | | | | | | | | | | | | |

[illegible][illegible]

| Rank | Company | 1992 Sales | 1992 Profit | 1992 Assets | 1992 Liabilities | 1992 Equity | 1992 Debt | 1992 Cash | 1992 Inventory | 1992 Receivables | 1992 Payables | 1992 Other | 1992 Total | 1992 Change | 1992 Notes |
|------|-----------------|------------|-------------|-------------|------------------|-------------|-----------|-----------|----------------|------------------|---------------|------------|------------|-------------|------------|
| 1 | Wal-Mart | 10,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 |
| 2 | Wal-Mart Stores | 9,000 | 900 | 900 | 900 | 900 | 900 | 900 | 900 | 900 | 900 | 900 | 900 | 900 | 900 |
| 3 | Wal-Mart Stores | 8,000 | 800 | 800 | 800 | 800 | 800 | 800 | 800 | 800 | 800 | 800 | 800 | 800 | 800 |
| 4 | Wal-Mart Stores | 7,000 | 700 | 700 | 700 | 700 | 700 | 700 | 700 | 700 | 700 | 700 | 700 | 700 | 700 |
| 5 | Wal-Mart Stores | 6,000 | 600 | 600 | 600 | 600 | 600 | 600 | 600 | 600 | 600 | 600 | 600 | 600 | 600 |
| 6 | Wal-Mart Stores | 5,000 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 |
| 7 | Wal-Mart Stores | 4,000 | 400 | 400 | 400 | 400 | 400 | 400 | 400 | 400 | 400 | 400 | 400 | 400 | 400 |
| 8 | Wal-Mart Stores | 3,000 | 300 | 300 | 300 | 300 | 300 | 300 | 300 | 300 | 300 | 300 | 300 | 300 | 300 |
| 9 | Wal-Mart Stores | 2,000 | 200 | 200 | 200 | 200 | 200 | 200 | 200 | 200 | 200 | 200 | 200 | 200 | 200 |
| 10 | Wal-Mart Stores | 1,000 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 11 | Wal-Mart Stores | 900 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 |
| 12 | Wal-Mart Stores | 800 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 |
| 13 | Wal-Mart Stores | 700 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 |
| 14 | Wal-Mart Stores | 600 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 |
| 15 | Wal-Mart Stores | 500 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| 16 | Wal-Mart Stores | 400 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 |
| 17 | Wal-Mart Stores | 300 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| 18 | Wal-Mart Stores | 200 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |
| 19 | Wal-Mart Stores | 100 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| 20 | Wal-Mart Stores | 90 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |
| 21 | Wal-Mart Stores | 80 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| 22 | Wal-Mart Stores | 70 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| 23 | Wal-Mart Stores | 60 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| 24 | Wal-Mart Stores | 50 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| 25 | Wal-Mart Stores | 40 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| 26 | Wal-Mart Stores | 30 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| 27 | Wal-Mart Stores | 20 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| 28 | Wal-Mart Stores | 10 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 29 | Wal-Mart Stores | 9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 |
| 30 | Wal-Mart Stores | 8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 |
| 31 | Wal-Mart Stores | 7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 |
| 32 | Wal-Mart Stores | 6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 |
| 33 | Wal-Mart Stores | 5 | | | | | | | | | | | | | |
| 34 | Wal-Mart Stores | 4 | | | | | | | | | | | | | |
| 35 | Wal-Mart Stores | 3 | | | | | | | | | | | | | |
| 36 | Wal-Mart Stores | 2 | | | | | | | | | | | | | |
| 37 | Wal-Mart Stores | 1 | | | | | | | | | | | | | |
| 38 | Wal-Mart Stores | 0.9 | | | | | | | | | | | | | |
| 39 | Wal-Mart Stores | 0.8 | | | | | | | | | | | | | |
| 40 | Wal-Mart Stores | 0.7 | | | | | | | | | | | | | |
| 41 | Wal-Mart Stores | 0.6 | | | | | | | | | | | | | |
| 42 | Wal-Mart Stores | 0.5 | | | | | | | | | | | | | |
| 43 | Wal-Mart Stores | 0.4 | | | | | | | | | | | | | |
| 44 | Wal-Mart Stores | 0.3 | | | | | | | | | | | | | |
| 45 | Wal-Mart Stores | 0.2 | | | | | | | | | | | | | |
| 46 | Wal-Mart Stores | 0.1 | | | | | | | | | | | | | |
| 47 | Wal-Mart Stores | 0.09 | | | | | | | | | | | | | |
| 48 | Wal-Mart Stores | 0.08 | | | | | | | | | | | | | |
| 49 | Wal-Mart Stores | 0.07 | | | | | | | | | | | | | |
| 50 | Wal-Mart Stores | 0.06 | | | | | | | | | | | | | |
| 51 | Wal-Mart Stores | 0.05 | | | | | | | | | | | | | |
| 52 | Wal-Mart Stores | 0.04 | | | | | | | | | | | | | |
| 53 | Wal-Mart Stores | 0.03 | | | | | | | | | | | | | |
| 54 | Wal-Mart Stores | 0.02 | | | | | | | | | | | | | |
| 55 | Wal-Mart Stores | 0.01 | | | | | | | | | | | | | |
| 56 | Wal-Mart Stores | 0.009 | | | | | | | | | | | | | |
| 57 | Wal-Mart Stores | 0.008 | | | | | | | | | | | | | |
| 58 | Wal-Mart Stores | 0.007 | | | | | | | | | | | | | |
| 59 | Wal-Mart Stores | 0.006 | | | | | | | | | | | | | |
| 60 | Wal-Mart Stores | 0.005 | | | | | | | | | | | | | |
| 61 | Wal-Mart Stores | 0.004 | | | | | | | | | | | | | |
| 62 | Wal-Mart Stores | 0.003 | | | | | | | | | | | | | |
| 63 | Wal-Mart Stores | 0.002 | | | | | | | | | | | | | |
| 64 | Wal-Mart Stores | 0.001 | | | | | | | | | | | | | |
| 65 | Wal-Mart Stores | 0.0009 | | | | | | | | | | | | | |
| 66 | Wal-Mart Stores | 0.0008 | | | | | | | | | | | | | |
| 67 | Wal-Mart Stores | 0.0007 | | | | | | | | | | | | | |
| 68 | Wal-Mart Stores | 0.0006 | | | | | | | | | | | | | |
| 69 | Wal-Mart Stores | 0.0005 | | | | | | | | | | | | | |
| 70 | Wal-Mart Stores | 0.0004 | | | | | | | | | | | | | |
| 71 | Wal-Mart Stores | 0.0003 | | | | | | | | | | | | | |
| 72 | Wal-Mart Stores | 0.0002 | | | | | | | | | | | | | |
| 73 | Wal-Mart Stores | 0.0001 | | | | | | | | | | | | | |
| 74 | Wal-Mart Stores | 0.00009 | | | | | | | | | | | | | |
| 75 | Wal-Mart Stores | 0.00008 | | | | | | | | | | | | | |
| 76 | Wal-Mart Stores | 0.00007 | | | | | | | | | | | | | |
| 77 | Wal-Mart Stores | 0.00006 | | | | | | | | | | | | | |
| 78 | Wal-Mart Stores | 0.00005 | | | | | | | | | | | | | |
| 79 | Wal-Mart Stores | 0.00004 | | | | | | | | | | | | | |
| 80 | Wal-Mart Stores | 0.00003 | | | | | | | | | | | | | |
| 81 | Wal-Mart Stores | 0.00002 | | | | | | | | | | | | | |
| 82 | Wal-Mart Stores | 0.00001 | | | | | | | | | | | | | |
| 83 | Wal-Mart Stores | 0.000009 | | | | | | | | | | | | | |
| 84 | Wal-Mart Stores | 0.000008 | | | | | | | | | | | | | |
| 85 | Wal-Mart Stores | 0.000007 | | | | | | | | | | | | | |
| 86 | Wal-Mart Stores | 0.000006 | | | | | | | | | | | | | |
| 87 | Wal-Mart Stores | 0.000005 | | | | | | | | | | | | | |
| 88 | Wal-Mart Stores | 0.000004 | | | | | | | | | | | | | |
| 89 | Wal-Mart Stores | 0.000003 | | | | | | | | | | | | | |
| 90 | Wal-Mart Stores | 0.000002 | | | | | | | | | | | | | |
| 91 | Wal-Mart Stores | 0.000001 | | | | | | | | | | | | | |
| 92 | Wal-Mart Stores | 0.0000009 | | | | | | | | | | | | | |
| 93 | Wal-Mart Stores | 0.0000008 | | | | | | | | | | | | | |
| 94 | Wal-Mart Stores | 0.0000007 | | | | | | | | | | | | | |
| 95 | Wal-Mart Stores | 0.0000006 | | | | | | | | | | | | | |
| 96 | Wal-Mart Stores | 0.0000005 | | | | | | | | | | | | | |
| 97 | Wal-Mart Stores | 0.0000004 | | | | | | | | | | | | | |
| 98 | Wal-Mart Stores | 0.0000003 | | | | | | | | | | | | | |
| 99 | Wal-Mart Stores | 0.0000002 | | | | | | | | | | | | | |
| 100 | Wal-Mart Stores | 0.0000001 | | | | | | | | | | | | | |

| Rank | Company | 1992 | 1991 | 1990 | 1989 | 1988 | 1987 | 1986 | 1985 | 1984 | 1983 | 1982 | 1981 | 1980 | 1979 | 1978 | 1977 | 1976 | 1975 | 1974 | 1973 | 1972 | 1971 | 1970 | 1969 | 1968 | 1967 | 1966 | 1965 | 1964 | 1963 | 1962 | 1961 | 1960 | 1959 | 1958 | 1957 | 1956 | 1955 | 1954 | 1953 | 1952 | 1951 | 1950 | 1949 | 1948 | 1947 | 1946 | 1945 | 1944 | 1943 | 1942 | 1941 | 1940 | 1939 | 1938 | 1937 | 1936 | 1935 | 1934 | 1933 | 1932 | 1931 | 1930 | 1929 | 1928 | 1927 | 1926 | 1925 | 1924 | 1923 | 1922 | 1921 | 1920 | 1919 | 1918 | 1917 | 1916 | 1915 | 1914 | 1913 | 1912 | 1911 | 1910 | 1909 | 1908 | 1907 | 1906 | 1905 | 1904 | 1903 | 1902 | 1901 | 1900 | 1899 | 1898 | 1897 | 1896 | 1895 | 1894 | 1893 | 1892 | 1891 | 1890 | 1889 | 1888 | 1887 | 1886 | 1885 | 1884 | 1883 | 1882 | 1881 | 1880 | 1879 | 1878 | 1877 | 1876 | 1875 | 1874 | 1873 | 1872 | 1871 | 1870 | 1869 | 1868 | 1867 | 1866 | 1865 | 1864 | 1863 | 1862 | 1861 | 1860 | 1859 | 1858 | 1857 | 1856 | 1855 | 1854 | 1853 | 1852 | 1851 | 1850 | 1849 | 1848 | 1847 | 1846 | 1845 | 1844 | 1843 | 1842 | 1841 | 1840 | 1839 | 1838 | 1837 | 1836 | 1835 | 1834 | 1833 | 1832 | 1831 | 1830 | 1829 | 1828 | 1827 | 1826 | 1825 | 1824 | 1823 | 1822 | 1821 | 1820 | 1819 | 1818 | 1817 | 1816 | 1815 | 1814 | 1813 | 1812 | 1811 | 1810 | 1809 | 1808 | 1807 | 1806 | 1805 | 1804 | 1803 | 1802 | 1801 | 1800 | 1799 | 1798 | 1797 | 1796 | 1795 | 1794 | 1793 | 1792 | 1791 | 1790 | 1789 | 1788 | 1787 | 1786 | 1785 | 1784 | 1783 | 1782 | 1781 | 1780 | 1779 | 1778 | 1777 | 1776 | 1775 | 1774 | 1773 | 1772 | 1771 | 1770 | 1769 | 1768 | 1767 | 1766 | 1765 | 1764 | 1763 | 1762 | 1761 | 1760 | 1759 | 1758 | 1757 | 1756 | 1755 | 1754 | 1753 | 1752 | 1751 | 1750 | 1749 | 1748 | 1747 | 1746 | 1745 | 1744 | 1743 | 1742 | 1741 | 1740 | 1739 | 1738 | 1737 | 1736 | 1735 | 1734 | 1733 | 1732 | 1731 | 1730 | 1729 | 1728 | 1727 | 1726 | 1725 | 1724 | 1723 | 1722 | 1721 | 1720 | 1719 | 1718 | 1717 | 1716 | 1715 | 1714 | 1713 | 1712 | 1711 | 1710 | 1709 | 1708 | 1707 | 1706 | 1705 | 1704 | 1703 | 1702 | 1701 | 1700 | 1699 | 1698 | 1697 | 1696 | 1695 | 1694 | 1693 | 1692 | 1691 | 1690 | 1689 | 1688 | 1687 | 1686 | 1685 | 1684 | 1683 | 1682 | 1681 | 1680 | 1679 | 1678 | 1677 | 1676 | 1675 | 1674 | 1673 | 1672 | 1671 | 1670 | 1669 | 1668 | 1667 | 1666 | 1665 | 1664 | 1663 | 1662 | 1661 | 1660 | 1659 | 1658 | 1657 | 1656 | 1655 | 1654 | 1653 | 1652 | 1651 | 1650 | 1649 | 1648 | 1647 | 1646 | 1645 | 1644 | 1643 | 1642 | 1641 | 1640 | 1639 | 1638 | 1637 | 1636 | 1635 | 1634 | 1633 | 1632 | 1631 | 1630 | 1629 | 1628 | 1627 | 1626 | 1625 | 1624 | 1623 | 1622 | 1621 | 1620 | 1619 | 1618 | 1617 | 1616 | 1615 | 1614 | 1613 | 1612 | 1611 | 1610 | 1609 | 1608 | 1607 | 1606 | 1605 | 1604 | 1603 | 1602 | 1601 | 1600 | 1599 | 1598 | 1597 | 1596 | 1595 | 1594 | 1593 | 1592 | 1591 | 1590 | 1589 | 1588 | 1587 | 1586 | 1585 | 1584 | 1583 | 1582 | 1581 | 1580 | 1579 | 1578 | 1577 | 1576 | 1575 | 1574 | 1573 | 1572 | 1571 | 1570 | 1569 | 1568 | 1567 | 1566 | 1565 | 1564 | 1563 | 1562 | 1561 | 1560 | 1559 | 1558 | 1557 | 1556 | 1555 | 1554 | 1553 | 1552 | 1551 | 1550 | 1549 | 1548 | 1547 | 1546 | 1545 | 1544 | 1543 | 1542 | 1541 | 1540 | 1539 | 1538 | 1537 | 1536 | 1535 | 1534 | 1533 | 1532 | 1531 | 1530 | 1529 | 1528 | 1527 | 1526 | 1525 | 1524 | 1523 | 1522 | 1521 | 1520 | 1519 | 1518 | 1517 | 1516 | 1515 | 1514 | 1513 | 1512 | 1511 | 1510 | 1509 | 1508 | 1507 | 1506 | 1505 | 1504 | 1503 | 1502 | 1501 | 1500 | 1499 | 1498 | 1497 | 1496 | 1495 | 1494 | 1493 | 1492 | 1491 | 1490 | 1489 | 1488 | 1487 | 1486 | 1485 | 1484 | 1483 | 1482 | 1481 | 1480 | 1479 | 1478 | 1477 | 1476 | 1475 | 1474 | 1473 | 1472 | 1471 | 1470 | 1469 | 1468 | 1467 | 1466 | 1465 | 1464 | 1463 | 1462 | 1461 | 1460 | 1459 | 1458 | 1457 | 1456 | 1455 | 1454 | 1453 | 1452 | 1451 | 1450 | 1449 | 1448 | 1447 | 1446 | 1445 | 1444 | 1443 | 1442 | 1441 | 1440 | 1439 | 1438 | 1437 | 1436 | 1435 | 1434 | 1433 | 1432 | 1431 | 1430 | 1429 | 1428 | 1427 | 1426 | 1425 | 1424 | 1423 | 1422 | 1421 | 1420 | 1419 | 1418 | 1417 | 1416 | 1415 | 1414 | 1413 | 1412 | 1411 | 1410 | 1409 | 1408 | 1407 | 1406 | 1405 | 1404 | 1403 | 1402 | 1401 | 1400 | 1399 | 1398 | 1397 | 1396 | 1395 | 1394 | 1393 | 1392 | 1391 | 1390 | 1389 | 1388 | 1387 | 1386 | 1385 | 1384 | 1383 | 1382 | 1381 | 1380 | 1379 | 1378 | 1377 | 1376 | 1375 | 1374 | 1373 | 1372 | 1371 | 1370 | 1369 | 1368 | 1367 | 1366 | 1365 | 1364 | 1363 | 1362 | 1361 | 1360 | 1359 | 1358 | 1357 | 1356 | 1355 | 1354 | 1353 | 1352 | 1351 | 1350 | 1349 | 1348 | 1347 | 1346 | 1345 | 1344 | 1343 | 1342 | 1341 | 1340 | 1339 | 1338 | 1337 | 1336 | 1335 | 1334 | 1333 | 1332 | 1331 | 1330 | 1329 | 1328 | 1327 | 1326 | 1325 | 1324 | 1323 | 1322 | 1321 | 1320 | 1319 | 1318 | 1317 | 1316 | 1315 | 1314 | 1313 | 1312 | 1311 | 1310 | 1309 | 1308 | 1307 | 1306 | 1305 | 1304 | 1303 | 1302 | 1301 | 1300 | 1299 | 1298 | 1297 | 1296 | 1295 | 1294 | 1293 | 1292 | 1291 | 1290 | 1289 | 1288 | 1287 | 1286 | 1285 | 1284 | 1283 | 1282 | 1281 | 1280 | 1279 | 1278 | 1277 | 1276 | 1275 | 1274 | 1273 | 1272 | 1271 | 1270 | 1269 | 1268 | 1267 | 1266 | 1265 | 1264 | 1263 | 1262 | 1261 | 1260 | 1259 | 1258 | 1257 | 1256 | 1255 | 1254 | 1253 | 1252 | 1251 | 1250 | 1249 | 1248 | 1247 | 1246 | 1245 | 1244 | 1243 | 1242 | 1241 | 1240 | 1239 | 1238 | 1237 | 1236 | 1235 | 1234 | 1233 | 1232 | 1231 | 1230 | 1229 | 1228 | 1227 | 1226 | 1225 | 1224 | 1223 | 1222 | 1221 | 1220 | 1219 | 1218 | 1217 | 1216 | 1215 | 1214 | 1213 | 1212 | 1211 | 1210 | 1209 | 1208 | 1207 | 1206 | 1205 | 1204 | 1203 | 1202 | 1201 | 1200 | 1199 | 1198 | 1197 | 1196 | 1195 | 1194 | 1193 | 1192 | 1191 | 1190 | 1189 | 1188 | 1187 | 1186 | 1185 | 1184 | 1183 | 1182 | 1181 | 1180 | 1179 | 1178 | 1177 | 1176 | 1175 | 1174 | 1173 | 1172 | 1171 | 1170 | 1169 | 1168 | 1167 | 1166 | 1165 | 1164 | 1163 | 1162 | 1161 | 1160 | 1159 | 1158 | 1157 | 1156 | 1155 | 1154 | 1153 | 1152 | 1151 | 1150 | 1149 | 1148 | 1147 | 1146 | 1145 | 1144 | 1143 | 1142 | 1141 | 1140 | 1139 | 1138 | 1137 | 1136 | 1135 | 1134 | 1133 | 1132 | 1131 | 1130 | 1129 | 1128 | 1127 | 1126 | 1125 | 1124 | 1123 | 1122 | 1121 | 1120 | 1119 | 1118 | 1117 | 1116 | 1115 | 1114 | 1113 | 1112 | 1111 | 1110 | 1109 | 1108 | 1107 | 1106 | 1105 | 1104 | 1103 | 1102 | 1101 | 1100 | 1099 | 1098 | 1097 | 1096 | 1095 | 1094 | 1093 | 1092 | 1091 | 1090 | 1089 | 1088 | 1087 | 1086 | 1085 | 1084 | 1083 | 1082 | 1081 | 1080 | 1079 | 1078 | 1077 | 1076 | 1075 | 1074 | 1073 | 1072 | 1071 | 1070 | 1069 | 1068 | 1067 | 1066 | 1065 | 1064 | 1063 | 1062 | 1061 | 1060 | 1059 | 1058 | 1057 | 1056 | 1055 | 1054 | 1053 | 1052 | 1051 | 1050 | 1049 | 1048 | 1047 | 1046 | 1045 | 1044 | 1043 | 1042 | 1041 | 1040 | 1039 | 1038 | 1037 | 1036 | 1035 | 1034 | 1033 | 1032 | 1031 | 1030 | 1029 | 1028 | 1027 | 1026 | 1025 | 1024 | 1023 | 1022 | 1021 | 1020 | 1019 | 1018 | 1017 | 1016 | 1015 | 1014 | 1013 | 1012 | 1011 | 1010 | 1009 | 1008 | 1007 | 1006 | 1005 | 1004 | 1003 | 1002 | 1001 | 1000 | 999 | 998 | 997 | 996 | 995 | 994 | 993 | 992 | 991 | 990 | 989 | 988 | 987 | 986 | 985 | 984 | 983 | 982 | 981 | 980 | 979 | 978 | 977 | 976 | 975 | 974 | 973 | 972 | 971 | 970 | 969 | 968 | 967 | 966 | 965 | 964 | 963 | 962 | 961 | 960 | 959 | 958 | 957 | 956 | 955 | 954 | 953 | 952 | 951 | 950 | 949 | 948 | 947 | 946 | 945 | 944 | 943 | 942 | 941 | 940 | 939 | 938 | 937 | 936 | 935 | 934 | 933 | 932 | 931 | 930 | 929 | 928 | 927 | 926 | 925 | 924 | 923 | 922 | 921 | 920 | 919 | 918 | 917 | 916 | 915 | 914 | 913 | 912 | 911 | 910 | 909 | 908 | 907 | 906 | 905 | 904 | 903 | 902 | 901 | 900 | 899 | 898 | 897 | 896 | 895 | 894 | 893 | 892 | 891 | 890 | 889 | 888 | 887 | 886 | 885 | 884 | 883 | 882 | 881 | 880 | 879 | 878 | 877 | 876 | 875 | 874 | 873 | 872 | 871 | 870 | 869 | 868 | 867 | 866 | 865 | 864 | 863 | 862 | 861 | 860 | 859 | 858 | 857 | 856 | 855 | 854 | 853 | 852 | 851 | 850 | 849 | 848 | 847 | 846 | 845 | 844 | 843 | 842 | 841 | 840 | 839 | 838 | 837 | 836 | 835 | 834 | 833 | 832 | 831 | 830 | 829 | 828 | 827 | 826 | 825 | 824 | 823 | 822 | 821 | 820 | 819 | 818 | 817 | 816 | 815 | 814 | 813 | 812 | 811 | 810 | 809 | 808 | 807 | 806 | 805 | 804 | 803 | 802 | 801 | 800 | 799 | 798 | 797 | 796 | 795 | 794 | 793 | 792 | 791 | 790 | 789 | 788 | 787 | 786 | 785 | 784 | 783 | 782 | 781 | 780 | 779 | 778 | 777 | 776 | 775 | 774 | 773 | 772 | 771 | 770 | 769 | 768 | 767 | 766 | 765 | 764 | 763 | 762 | 761 | 760 | 759 | 758 | 757 | 756 | 755 | 754 | 753 | 752 | 751 | 750 | 749 | 748 | 747 | 746 | 745 | 744 | 743 | 742 | 741 | 740 | 739 | 738 | 737 | 736 | 735 | 734 | 733 | 732 | 731 | 730 | 729 | 728 | 727 | 726 | 725 | 724 | 723 | 722 | 721 | 720 | 719 | 718 | 717 | 716 | 715 | 714 | 713 | 712 | 711 | 710 | 709 | 708 | 707 | 706 | 705 | 704 | 703 | 702 | 701 | 700 | 699 | 698 | 697 | 696 | 695 | 694 | 693 | 692 | 691 | 690 | 689 | 688 | 687 | 686 | 685 | 684 | 683 | 682 | 681 | 680 | 679 | 678 | 677 | 676 | 675 | 674 | 673 | 672 | 671 | 670 | 669 | 668 | 667 | 666 | 665 | 664 | 663 | 662 | 661 | 660 | 659 | 658 | 657 | 656 | 655 | 654 | 653 | 652 | 651 | 650 | 649 | 648 | 647 | 646 | 645 | 644 | 643 | 642 | 641 | 640 | 639 | 638 | 637 | 636 | 635 | 634 | 633 | 632 | 631 | 630 | 629 | 628 | 627 | 626 | 625 | 624 | 623 | 622 | 621 | 620 | 619 | 618 | 617 | 616 | 615 | 614 | 613 | 612 | 611 | 610 | 609 | 608 | 607 | 606 | 605 | 604 | 603 | 602 | 601 | 600 | 599 | 598 | 597 | 596 | 595 | 594 | 593 | 592 | 591 | 590 | 589 | 588 | 587 | 586 | 585 | 584 | 583 | 582 | 581 | 580 | 579 | 578 | 577 | 576 | 575 | 574 | 573 | 572 | 571 |
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[illegible]

TECHNOLOGY THAT WORKS FOR LIFE

Samsung
8mm Camcorder



8 Times Power Zoom
Palm-Size

SAMSUNG
ELECTRONICS

Continued on next page

AMERICA

US markets subdued despite rally in bonds

Wall Street

US share prices were flat to lower in modest trading yesterday morning in spite of further gains in a booming bond market, writes Patrick Harverson in New York.

At 1 p.m. the Dow Jones Industrial Average was down 5.32 at 3,623.52. The more broadly based Standard & Poor's 500 was up 0.30 at 461.54, while the Amex composite was 2.20 lower at 459.37, and the Nasdaq composite down 3.79 at 745.54. Trading volume on the NYSE was 1,000 shares by 1 p.m. and declines outnumbered rises by 552 to 888.

Dealers and investors returned from the long holiday weekend in a subdued mood. Analysts said that if the strong rally in bond prices continued it may not provide much of a help to stocks because investors are increasingly worried that the bull market in both stocks and bonds may soon face a correction, temporary or otherwise.

The autumn is traditionally a time to reassess market conditions, and analysts worry

that the record-breaking summer for both stock and bond prices might prompt a quick and sharp sell-off by investors fearful that both markets have become overbought.

This theory was put forward as a possible explanation for why another big decline in bond yields yesterday failed to lift stocks, which were stuck in a narrow trading range either side of opening values all morning. Some dealers also blamed the weakness in prices on losses on overseas markets and sporadic profit-taking.

Among individual stocks, Barold Corporation jumped 3% to 48 1/2 in volume of 2m shares after Dresser Industries announced that it had reached an agreement to acquire the oil services company for \$900m in stock. News of the deal left Dresser shares 3% lower at \$22 1/2.

Gold stocks fell sharply as gold prices plunged on the commodities exchanges. Newmont Mining slipped 3% to \$47 1/2, Homestake Mining eased 1 1/2% to \$16 1/2, Battle Mountain Gold gave up \$1 at \$7 1/2, and Newmont Gold fell 3 1/2% to \$40 1/2.

Falling interest rates buoyed

bank stocks, which have been a neglected sector of the market lately. Chase Manhattan added 3% at \$35 1/2, Citicorp gained 3% at \$43 1/2, Banc One firming 3% to \$42 and BankAmerica rose 3% to \$46 1/2.

Advanced Micro Devices, down 1 1/2% at \$27 1/2, ran into heavy selling for the second consecutive day in the wake of last week's revelations about its microprocessor development programme.

On the Nasdaq market, Total Pharmaceutical Care soared 7 1/2% to \$41 1/2 in volume of 1m shares on the news that the company is being bought by Abbey Healthcare (down 3% at \$22 1/2) for \$197m.

Canada

TORONTO was led lower by weakness in gold shares as Comex bullion prices slipped to its lowest level since May.

The TSX-300 index fell 57.86 to 4,067.74 by noon in volume of 35.7m shares, compared with 26.5m last Friday.

Among actively traded gold issues, Placer Dome fell 3 1/2% to \$32 1/2 and American Barrick was 3 1/2% lower at \$30.

EUROPE

Frankfurt falls by 1.3% in low turnover

DOUBTS began to emerge that the Bundesbank may not move on rates tomorrow, and some houses took this as a signal to move lower, writes Our Markets Staff.

FRANKFURT fell below the 1,900 level although turnover remained low throughout the session, only spiking in the car sector. The DAX index ended off 24.32 or 1.3 per cent at 1,885.95 in turnover of DM6.3bn. In the post-bourse the index slipped back further to 1,878.84.

Some analysts noted that most investors were unwilling to take positions ahead of tomorrow's Buba meeting, particularly as a view was beginning to take hold that there might not be a significant reduction in interest rates, or that the council member might wait until their next meeting on September 23.

The car sector remained active with Volkswagen sliding a further DM10.50 to DM361.50 and Daimler down DM10.60 to DM730.50.

The correction in PARIS continued, with a fall in the CAC-40 index of 20.87 to

2,157.39. Turnover was a low FF2.5bn.

Lafarge Coppée, the cement group, was among the heaviest losers on the day, closing down FF17.80 at FF409.50 after reports that the company was to consider a capital increase at its board meeting next week.

Elsewhere, Carrefour continued to perform well after interim results, rising FF31 to FF131.11.

In the media sector, Canal Plus put on another FF20 to FF1,324 following the announcement of reorganisation plans for the television sector, while Générale des Eaux, a shareholder in Canal Plus, added FF34 to FF2,540. The latter has recently attracted an upgrade from Hoare Govett from hold to buy. There have been reports that Générale des Eaux might realise a capital gain from swapping all or part of its 20 per cent holding in Canal Plus for a stake in Havas.

Total fell FF5.10 to FF304.10 ahead of today's results.

MILAN remained under pressure, the Comit index falling

FT-SE Actuaries Share Indices

| September 7 | | THE EUROPEAN SERIES | | | | | | | |
|----------------|---------|---------------------|---------|---------|---------|---------|---------|---------|--|
| Weekly changes | Open | 10.30 | 11.00 | 12.00 | 13.00 | 14.00 | 15.00 | Close | |
| FT-SE 100 | 1267.00 | 1268.32 | 1268.86 | 1265.44 | 1262.31 | 1263.71 | 1279.94 | 1277.38 | |
| FT-SE 250 | 1371.02 | 1371.43 | 1372.00 | 1370.67 | 1368.93 | 1369.19 | 1366.61 | 1365.61 | |
| | | Sept 8 | Sept 9 | Sept 2 | Sept 1 | Aug 31 | | | |
| FT-SE 100 | 1264.01 | 1263.60 | 1262.75 | 1260.63 | 1260.63 | 1305.63 | 1319.96 | | |
| FT-SE 250 | 1371.00 | 1368.27 | 1385.48 | 1385.48 | 1385.51 | 1398.45 | | | |

Now when 1000 shares are bought: 100 - 1267.00; 200 - 1273.00; 300 - 1279.00; 400 - 1285.00; 500 - 1291.00; 600 - 1297.00; 700 - 1303.00; 800 - 1309.00; 900 - 1315.00; 1000 - 1321.00.

7.15 to 600.75 in volatile conditions, amid worries about rights issues and expectations of some movement on German interest rates on Thursday.

Mediobanca, the merchant bank, shed 1.84 or 5 per cent to L16,434 in response to its planned rights issue, announced late on Monday. The move prompted speculation yesterday that it might be planning to use the cash as part of a consortium to buy BCI, the privatisation candidate.

Fiat continued to lose ground on continuing worries that it might be planning a capital raising exercise, the shares falling L1.78 or 2.7 per cent to L6,403.

Ferruzzi's continued advance, up L37.2 to L411.7, prompted speculation that the banks preparing a rescue package were building stakes.

ZUBICH made up some of the ground lost on Monday, the SMI index rising 10.9 to 2,403.4, although there was concern that further profit-taking could emerge in the absence of clear-cut moves towards lower European interest rates.

STOCKHOLM saw Volvo B down SKr25 at SKr458 following Monday's news of its merger with Renault Unibank Securities, in an initial comment on the deal, said that negative factors for Volvo included the fact that the Swedish car group was to lose

"absolute control over its industrial core", while the positive elements included long term development funding.

The Affärsvärlden general index fell 6.3 to 1,284.4 in turnover of SKr1.2bn.

AMSTERDAM slipped back, assisted by a loss in Ahold of F1.80 to F191.20, after reporting interim results which disappointed some investors. The CBS Tendency index fell 0.3 to 126.4.

ATHENS was put under pressure by fears that the government might be forced into holding early elections. The general index, which was marked 5 per cent lower at one stage, erased some of the loss to close 25.81 or 3 per cent easier on the day at 820.90.

WARSAW, which has also been testing record highs recently, was another of Europe's smaller markets to fall back, the WIG index shedding 420 or 5.6 per cent to 7,141.3. Turnover was a record 1,360bn zloty.

TEL AVIV retreated on profit-taking after six consecutive sessions of gains. The Mish-tanin index fell 7.54 to 221.50.

ASIA PACIFIC

Nikkei average settles below the 21,000 level

Tokyo

INVESTORS remained on the sidelines ahead of the release of the Bank of Japan's tankan, or quarterly report on business sentiment, and share prices lost ground on profit-taking, writes Emiko Terazono in Tokyo.

The 225-list average shed 98.71 to 20,982.10, falling below the 21,000 level for the first time in three trading days. The index opened at the day's high of 21,065.81 and fell to a low of 20,830.19 just before the close. Some financial institutions were seen reshuffling their share portfolios, while the downside was supported by index-linked buying by investment trusts.

Volume came to 250m shares, against Monday's 247m. Many foreign buyers were absent following the US holiday on Monday. Declines outpaced gains by 703 to 290, with 198 issues unchanged. The Topix index of all first section stocks slipped 7.13 to 1,689.78, and in London the ISE/Nikkei 50 index eased 0.86 to 1,291.53.

Investors failed to react to local press reports which forecast a reduction in the official discount rate next week. Instead, some market participants were discouraged by denials by Mr Morihiro Hosokawa, the prime minister, of a second supplementary package suggested in a leading daily newspaper.

However, some analysts believe that further talk of another economic package will support share prices. "We will see an inevitable process of consensus building towards a new fiscal package," wrote Mr Jason James of James Capel in a recent report.

Trading concentrated on the clearing of earlier positions. Retailers, which strengthened on earlier hopes of deregula-

tion, lost ground on profit-taking, as did foods, which were higher on Monday ahead of the medical and biotechnology conferences.

Ito-Yokado, the supermarket chain, receded Y50 to Y4,960 and Sanyo lost Y30 to Y1,420. Ajinomoto, the foods manufacturer, dipped Y10 to Y1,460 and Kikkoman, the soy sauce maker, eased Y10 to Y1,010.

Telecommunication infrastructure-related issues, which have been hit by profit-taking recently, were higher. Oki Electric Industry, the most active issue of the day, put on Y10 to Y555, while Fujitsu gained Y3 at Y838.

However, Nippon Telegraph and Telephone declined Y8,000 to Y941,000 on rumours that interest among foreign investors had shifted to DDI, the long distance telecom company recently listed on the second section of the Tokyo stock exchange.

In Osaka, the OSE average relinquished 142.14 to 22,918.23 in volume of 27m shares. The index lost ground for the first time in four days on small-lot profit-taking.

Roundup

A FIRM mood took hold in many of the Pacific Basin markets.

AUSTRALIA saw a flurry of late buying which left the All Ordinaries index 5.3 higher at 1,967.8.

Commonwealth Bank forged ahead 35 cents to A\$9.95 after posting an 8.4 per cent rise in annual net profits to A\$443.1m. National Australia Bank was 20 higher at A\$11.52.

Among media stocks, Nine Network climbed 32 cents to A\$4.25 in response to its announcement of a 16.4 per cent increase in annual net profits.

NEW ZEALAND picked up from early lows to finish

slightly firmer on the day, assisted by gains in Carter Holt Harvey, Telecom and Lion Nathan.

The NZSE-40 capital index was ahead 1.98 at 1,936.79, after an early dip to 1,887.36.

SEOUL turned sharply higher after a flurry of late buying by individual investors, actively hunting bargains in the vehicle, steel and high technology sectors. The composite index advanced 15.18 to 860.95.

BONG KONG closed firmer, but off morning highs, in this trade, inhibited by current high price levels. The Hang Seng index was finally 27.05 up at 7,546.71, after 7,563.48.

TAIWAN rebounded strongly after recent falls, although brokers cautioned that underlying investor confidence and the corporate profits outlook remained weak.

The weighted index was lifted 58.49, or 1.5 per cent, to 3,874.03 by a wave of late buying in speculative and government-related stocks. Turnover expanded to T\$13.48bn.

KUALA LUMPUR continued to focus its attention on rumour-driven stocks and the composite index added 1.30 at 849.70.

Union Paper, hit hard by allegations of insider trading, recouped 85 cents to M\$6.85 after Monday's M\$6.20 drop as the shares resumed trading after a two-month suspension.

BOMBAY finished sharply lower after the exchange authorities announced a ban on short sales. The BSE 30-share index ended 87.87, or 3.2 per cent, down at 2,533.53 after a low of 2,515.50 at mid-session.

The ban was intended to counter expected heavy selling pressure after the income tax authorities confiscated hundreds of thousands of shares held by proxies of broker Mr Harshad Mehta in nine companies.

A year ago it was hard to find a happy broker in Singapore. The market was in the doldrums while Hong Kong and other regional centres were stealing all the attention. Volumes were low and margins were tight.

Now things are very different. Even the most diffident of brokers admit that they have never had it so good. Until yesterday the local Straits Times Industrial Index was attaining record highs, closing on Monday at 2,045, compared with 1,500 at the start of 1993 and around 1,300 a year ago. Yesterday the market fell back on profit-taking, ending at 2,036.

Singapore has benefited from the general advance in global equities. Foreign funds, particularly from the US, have been pouring into east Asia, one of the world's most dynamic economic regions.

A number of Malaysian stocks are traded in Singapore over the counter and the recent vigour of the Kuala Lumpur market has also helped to push the STII to new highs.

"Singapore has been caught up in the general optimism about economic prospects in this part of the world," says Mr Tom Inglis of Peregrine Securities in Singapore. "There are enormous funds now flowing into the market here; Singapore has become fashionable again."

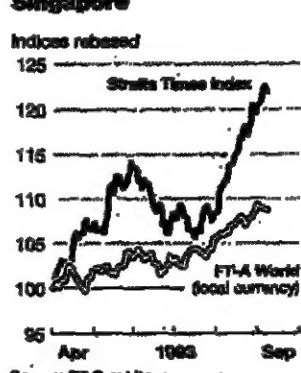
Local factors have also helped. The economic fundamentals remain sound, with growth in 1993 of 5.5 per cent and signs of more robust growth this year. Growth was 7.1 per cent in the first quarter and 10.1 per cent in the second, partly due to a surge in earnings from the financial services sector and the equity market revival.

Corporate news has also been positive, with banks,

SOUTH AFRICA

GOLD shares and mining financials fell in late trading as the bullion price declined. The gold index lost 64, or 3.9 per cent, to 1,589, which pulled the overall index down 45 to 3,907. The industrials index shed 11 to 4,580.

Singapore



Source: FT Graphix

buy shares. Incentives to share ownership are also being offered to CPF account holders. From the beginning of next month more than \$22bn (\$14bn) of CPF funds will be available for equity investment.

"The release of the CPF funds is one of the most important factors in giving buoyancy to the market," says Mr Lim Kok Ann of Merrill Lynch. "Singapore is becoming a far more liquid market - as a result it will also become more volatile."

But Singapore is likely to remain a carefully controlled market. This was reflected in the recent government announcement giving details of next month's partial float of Singapore Telecom, the state-owned telecommunications and postal service.

Brokers had been billing the float as the single biggest pri-

vatization so far in south-east Asia, valued at between \$20bn and \$35bn, equivalent to about 20 per cent of total market capitalisation.

But the ST float has been structured very conservatively. The government plans an initial float of only between 6 and 8 per cent of ST, with 50 per cent reserved for Singaporeans, the rest available to local and foreign investors through tender. The ST float will set the pattern for future listings of state companies, including the public utilities board and the port of Singapore.

"The government is playing the ST float very carefully," says one broker. "It knows that there is plenty of local liquidity and it is going to make sure that foreigners do not pick up a prime state asset like ST cheaply. You cannot blame the government - but it does take the fun out of things."

This announcement appears as a matter of record only



Lothian Regional Council

£70 million
Deferred Purchase Facilities
Extension

Joint Arrangers

Banque Paribas

Royal Bank of Canada
Europe Limited

Participating Banks

Banque Paribas
The Industrial Bank of Japan, Limited
The Mitsui Trust & Banking Company, Limited
National Westminster Bank Plc
The Sakura Bank, Limited

Royal Bank of Canada Europe Limited
The Royal Bank of Scotland plc
Morgan Grenfell & Co. Limited
The Asahi Bank, Ltd.

Royal Bank of Canada Europe Limited
Agent

BANQUE PARIBAS



ROYAL BANK OF CANADA
EUROPE LIMITED

August 1993

FT-ACTUARIES WORLD INDICES

Jointly compiled by The Financial Times Limited, Goldman, Sachs & Co. and NatWest Securities Limited
In conjunction with the Institute of Actuaries and the Faculty of Actuaries

| NATIONAL AND REGIONAL MARKETS | MONDAY SEPTEMBER 6 1993 | | | | | | | | | | FRIDAY SEPTEMBER 3 1993 | | | | | | | | | | DOLLAR INDEX | | | |
|-------------------------------|-------------------------|----------------|----------------------|-----------|----------|----------------------|--------------------|------------------|-----------------|----------------------|-------------------------|----------|----------------------|--------------------|------------------|-----------------|----------------------|-----------|----------|----------------------|--------------------|-----------|----------|-------------------|
| | US Dollar Index | Day's Change % | Pound Sterling Index | Yen Index | DM Index | Local Currency Index | Local % chg on day | Gross Div. Yield | US Dollar Index | Pound Sterling Index | Yen Index | DM Index | Local Currency Index | Local % chg on day | Gross Div. Yield | US Dollar Index | Pound Sterling Index | Yen Index | DM Index | Local Currency Index | Local % chg on day | 1993 High | 1993 Low | Year ago (approx) |
| Australia (68) | 143.24 | +0.7 | 139.08 | 94.35 | 120.05 | 147.20 | +0.5 | 3.46 | 142.30 | 138.21 | 94.45 | 120.04 | 146.47 | +0.4 | 3.46 | 142.30 | 138.21 | 94.45 | 120.04 | 146.47 | +0.4 | 148.84 | 117.39 | 127.46 |
| Austria (17) | 180.43 | +1.8 | 175.18 | 118.85 | 151.22 | 150.99 | +0.1 | 1.28 | 177.24 | 172.14 | 117.84 | 148.51 | 150.90 | +0.1 | 1.28 | 177.24 | 172.14 | 117.84 | 148.51 | 150.90 | +0.1 | 180.43 | 131.19 | 145.23 |
| Belgium (42) | 151.88 | +0.6 | 147.47 | 100.04 | 127.29 | 130.12 | +0.7 | 4.38 | 150.98 | 146.61 | 100.20 | 127.36 | 131.82 | +0.6 | 4.38 | 150.98 | 146.61 | 100.20 | 127.36 | 131.82 | +0.6 | 151.88 | 114.09 | 144.09 |
| Canada (107) | 127.03 | +0.1 | 123.34 | 83.67 | 106.46 | 122.16 | +0.0 | 2.78 | 126.94 | 123.29 | 84.25 | 107.07 | 122.16 | +0.1 | 2.78 | 126.94 | 123.29 | 84.25 | 107.07 | 122.16 | +0.1 | 127.03 | 80.17 | 107.07 |
| Denmark (32) | 281.42 | +0.6 | 224.89 | 152.43 | 193.95 | 206.07 | +0.3 | 1.09 | 225.97 | 223.36 | 152.64 | 193.99 | 206.72 | +0.3 | 1.09 | 225.97 | 223.36 | 152.64 | 193.99 | 206.72 | +0.3 | 281.42 | 181.16 | 215.87 |
| Finland (23) | 107.26 | +1.0 | 104.14 | 70.55 | 89.89 | 128.87 | +1.1 | 0.82 | 105.19 | 103.13 | 70.48 | 89.57 | 130.36 | +1.1 | 0.82 | 105.19 | 103.13 | 70.48 | 89.57 | 130.36 | +1.1 | 107.26 | 91.56 | 95.81 |
| France (87) | 170.50 | +0.6 | 165.84 | 112.30 | 142.88 | 151.88 | +0.1 | 3.04 | 169.10 | 164.24 | 112.23 | 142.83 | 151.79 | +0.1 | 3.04 | 169.10 | 164.24 | 112.23 | 142.83 | 151.79 | +0.1 | 170.50 | 127.46 | 165.36 |
| Germany (60) | 128.87 | +0.1 | 124.83 | 84.76 | 107.83 | 107.83 | +0.7 | 1.95 | 128.77 | 125.06 | 85.48 | 108.62 | 108.62 | +0.7 | 1.95 | 128.77 | 125.06 | 85.48 | 108.62 | 108.62 | +0.7 | 128.87 | 107.83 | 107.83 |
| Hong Kong (25) | 296.97 | +0.2 | 288.33 | 186.60 | 248.89 | 295.27 | +0.1 | 3.34 | 296.44 | 287.32 | 186.73 | 250.07 | 294.98 | +0.1 | 3.34 | 296.44 | 287.32 | 186.73 | 250.07 | 294.98 | +0.1 | 301.1 | 218.82 | 232.01 |
| Ireland (18) | 173.08 | +0.7 | 168.02 | 113.59 | 145.03 | 188.99 | +0.0 | 3.29 | 171.79 | 168.85 | 114.02 | 144.91 | 188.92 | +0.7 | 3.29 | 171.79 | 168.85 | 114.02 | 144.91 | 188.92 | +0.7 | 173.08 | 129.28 | 173.08 |
| Italy (70) | 77.42 | +0.4 | 75.17 | 50.99 | 64.88 | 90.14 | +2.2 | 1.81 | 77.75 | 75.82 | 51.60 | 65.58 | 92.18 | +2.2 | 1.81 | 77.75 | 75.82 | 51.60 | 65.58 | 92.18 | +2.2 | 77.42 | 50.17 | 70.17 |
| Japan (470) | 151.78 | +0.7 | 157.08 | 106.56 | 135.80 | 106.56 | +0. | 0.78 | 160.70 | 156.06 | 106.06 | 135.56 | 106.66 | +0.7 | 0.78 | 160.70 | 156.06 | 106.06 | 135.56 | 106.66 | +0.7 | 151.78 | 114.67 | 114.67 |
| Malaysia (96) | 408.99 | +0.8 | 399.07 | 289.37 | 347.25 | 400.95 | +0.5 | 1.71 | 405.73 | 394.08 | 289.28 | 342.24 | 399.70 | +0.8 | 1.71 | 405.73 | 394.08 | 289.28 | 342.24 | 399.70 | +0.8 | 408.99 | 251.66 | 338.75 |
| Mexico (19) | 1760.32 | +0.1 | 1709.13 | 1159.48 | 1475.28 | 9889.49 | +0.1 | 0.82 | 1762.29 | 1711.59 | 1168.86 | 14855.44 | 1764.16 | +0.1 | 0.82 | 1762.29 | 1711.59 | 1168.86 | 14855.44 | 1764.16 | +0.1 | 1760.32 | 1410.30 | 2306.73 |
| New Zealand (12) | 107.10 | +0.2 | 104.29 | 69.46 | 88.88 | 107.10 | +0.2 | 1.71 | 107.10 | 104.29 | 69.46 | 88.88 | 107.10 | +0.2 | 1.71 | 107.10 | 104.29 | 69.46 | 88.88 | 107.10 | +0.2 | 107.10 | 80.30 | 90.30 |
| Norway (22) | 86.70 | +0.0 | 85.93 | 59.98 | 89.97 | 90.10 | +0.2 | 3.77 | 86.70 | 85.93 | 59.98 | 90.10 | 86.70 | +0.0 | 3.77 | 86.70 | 85.93 | 59.98 | 90.10 | 86.70 | +0.0 | 86.70 | 82.38 | 82.38 |
| Sweden (63) | 177.15 | +0.2 | 172.00 | 116.69 | 148.47 | 188.56 | +1.2 | 1.57 | 176.85 | 171.77 | 117.38 | 148.19 | 170.81 | +0.2 | 1.57 | 176.85 | 171.77 | 117.38 | 148.19 | 170.81 | +0.2 | 177.15 | 137.71 | 143.10 |
| Singapore (26) | 280.46 | +0.2 | 282.01 | 191.32 | 243.4 | 280.46 | +0.2 | 2.78 | 280.46 | 282.01 | 191.32 | 243.4 | 280.46 | +0.2 | 2.78 | 280.46 | 282.01 | 191.32 | 243.4 | 280.46 | +0.2 | 280.46 | 188.43 | 200.46 |
| Spain (43) | 188.64 | +0.2 | 182.96 | 104.89 | 185.23 | 188.64 | +0.2 | 2.65 | 188.18 | 182.76 | 104.89 | 185.73 | 188.64 | +0.2 | 2.65 | 188.18 | 182.76 | 104.89 | 185.73 | 188.64 | +0.2 | 188.64 | 144.72 | 187.26 |
| Switzerland (3) | 139.43 | +0.3 | 138.38 | 91.84 | 115.86 | 214.85 | +0.1 | 4.11 | 138.43 | 138.43 | 91.84 | 115.87 | 214.85 | +0.3 | 4.11 | 138.43 | 138.43 | 91.84 | 115.87 | 214.85 | +0.3 | 139.43 | 112.23 | 144.72 |
| United Kingdom (218) | 191.35 | +1.7 | 185.79 | 126.04 | 160.47 | 184.74 | +0.5 | 1.50 | 186.20 | 182.79 | 126.04 | 160.47 | 184.74 | +1.7 | 1.50 | 186.20 | 182.79 | 126.04 | 160.47 | 184.74 | +1.7 | 191.35 | 170.87 | 180.87 |
| USA (720) | 136.41 | -1.2 | 129.26 | 93.96 | 114.02 | 136.41 | +0.1 | 1.81 | 136.41 | 129.26 | 93.96 | 114.02 | 136.41 | -1.2 | 1.81 | 136.41 | 129.26 | 93.96 | 114.02 | 136.41 | -1.2 | 136.41 | 130.04 | 136.41 |
| World (19) | 190.29 | +0.1 | 184.75 | 125.32 | 159.46 | 184.75 | +0.1 | 3.00 | 180.10 | 184.83 | 125.16 | 160.34 | 184.83 | +0.1 | 3.00 | 180.10 | 184.83 | 125.16 | 160.34 | 184.83 | +0.1 | 190.29 | 162.00 | 190.29 |
| USA (720) | 188.67 | +0.0 | 183.08 | 124.21 | 158.04 | 188.67 | +0.0 | 2.72 | 188.67 | 183.14 | 125.16 | 158.07 | 188.67 | +0.0 | 2.72 | 188.67 | 183.14 | 125.16 | 158.07 | 188.67 | +0.0 | 188.67 | 175.39 | 169.67 |
| Europe (849) | 156.19 | +0.2 | 154.06 | 104.86 | 133.42 | 147.72 | +0.1 | 3.02 | 158.87 | 154.30 | 105.45 | 134.02 | 148.25 | +0.2 | 3.02 | 158.87 | 154.30 | 105.45 | 134.02 | 148.25 | +0.2 | 156.19 | 133.92 | 146.83 |
| Mexico (19) | 180.49 | +0.3 | 175.24 | 118.88 | 151.26 | 180.49 | +0.3 | 1.33 | 178.25 | 173.13 | 118.88 | 151.26 | 180.49 | +0.3 | 1.33 | 178.25 | 173.13 | 118.88 | 151.26 | 180.49 | +0.3 | 180.49 | 133.92 | 146.83 |
| Norway (22) | 116.13 | +0.6 | 114.13 | 70.55 | 89.89 | 128.87 | +0.6 | 0.82 | 116.13 | 114.13 | 70.55 | 89.89 | 128.87 | +0.6 | 0.82 | 116.13 | 114.13 | 70.55 | 89.89 | 128.87 | +0.6 | 116.13 | 105.89 | 105.89 |
| USA - Pacific (164) | 182.86 | +0.5 | 185.13 | 126.78 | 136.49 | 178.87 | +0.2 | 1.83 | 182.11 | 185.45 | 126.78 | 136.74 | 180.88 | +0.5 | 1.83 | 182.11 | 185.45 | 126.78 | 136.74 | 180.88 | +0.5 | 182.86 | 117.26 | 131.03 |
| North America (827) | 184.74 | +0.0 | 179.37 | 121.70 | 164.86 | 184.04 | +0.0 | 2.72 | 184.73 | 178.42 | 122.63 | 165.89 | 184.04 | +0.5 | 2.72 | 184.73 | 178.42 | 122.63 | 165.89 | 184.04 | +0.5 | 184.74 | 171.51 | 157.32 |
| South America (24) | 184.74 | +0.0 | 179.37 | 121.70 | 164.86 | 184.04 | +0.0 | 2.72 | 184.73 | 178.42 | 122.63 | 165.89 | 184.04 | +0.5 | 2.72 | 184.73 | 178.42 | 122.63 | 165.89 | 184.04 | +0.5 | 184.74 | 171.51 | 157.32 |
| Pacific Ex. Japan (244) | 203.81 | +0.4 | 197.99 | 127.67 | 170.83 | 197.02 | +0.3 | 2.96 | 202.96 | 197.12 | 127.67 | 171.22 | 180.44 | +0.4 | 2.96 | 202.96 | 197.12 | 127.67 | 171.22 | 180.44 | +0.4 | 203.81 | 162.70 | 175.08 |
| World Ex. US (1847) | 182.69 | +0.4 | 183.60 | 107.30 | 136.22 | 182.81 | +0.2 | 1.86 | 182.17 | 185.06 | 107.30 | 136.80 | 183.13 | +0.4 | 1.86 | 182.17 | 185.06 | 107.30 | 136.80 | 183.13 | +0.4 | 182.69 | 118.51 | 132.20 |
| World Ex. US (1847) | 185.50 | +0.4 | 183.60 | 107.30 | 141.23 | 144.91 | +0.1 | 2.00 | 187.46 | 185.06 | 107.30 | 141.23 | 144.91 | +0.4 | 2.00 | 187.46 | 185.06 | 107.30 | 141.23 | 144.91 | +0.4 | 185.50 | 132.70 | 132.70 |
| World Ex. US (1847) | 185.50 | +0.4 | 183.60 | 107.30 | 141.23 | 144.91 | +0.1 | 2.00 | 187.46 | 185.06 | 107.30 | 141.23 | 144.91 | +0.4 | 2.00 | 187.46 | 185.06 | 107.30 | 141.23 | 144.91 | +0.4 | 185.50 | 132.70 | 132.70 |
| World Ex. US (1847) | 177.11 | +0.1 | 171.96 | 116.67 | 148.46 | 171.40 | +0.1 | 2.82 | 178.94 | 171.85 | 116.67 | 148.37 | 171.59 | +0.1 | 2.82 | 178.94 | 171.85 | 116.67 | 148.37 | 171.59 | +0.1 | 177.11 | 157.47 | 160.81 |
| World Ex. US (1847) | 177.11 | +0.1 | 171.96 | 116.67 | 148.46 | 171.40 | +0.1 | 2.82 | 178.94 | 171.85 | 116.67 | 148.37 | 171.59 | +0.1 | 2.82 | 178.94 | 171.85 | 116.67 | 148.37 | 171.59 | +0.1 | 177.11 | 157.47 | 160.81 |
| World Ex. US (1847) | 177.11 | +0.1 | 171.96 | 116.67 | 148.46 | 171.40 | +0.1 | 2.82 | 178.94 | 171.85 | 116.67 | 148.37 | 171.59 | +0.1 | 2.82 | 178.94 | 171.85 | 116.67 | 148.37 | 171.59 | +0.1 | 177.11 | 157.47 | 160.81 |
| World Ex. US (1847) | 177.11 | +0.1 | 171.96 | 116.67 | 148.46 | 171.40 | +0.1 | 2.82 | 178.94 | 171.85 | 116.67 | 148.37 | 171.59 | +0.1 | 2.82 | 178.94 | 171.85 | 116.67 | 148.37 | 171.59 | +0.1 | 177.11 | 157.47 | 160.81 |
| World Ex. US (1847) | 177.11 | +0.1 | 171.96 | 116.67 | 148.46 | 171.40 | +0.1 | 2.82 | 178.94 | 171.85 | 116.67 | 148.37 | 171.59 | +0.1 | 2.82 | 178.94 | 171.85 | 116.67 | 148.37 | 171.59 | +0.1 | 177.11 | 157.47 | 160.81 |
| World Ex. US (1847) | 177.11 | +0.1 | 171.96 | 116.67 | 148.46 | 171.40 | +0.1 | 2.82 | 178.94 | 171.85 | 116.67 | 148.37 | 171.59 | +0.1 | 2.82 | 178.94 | 171.85 | 116.67 | 148.37 | 171.59 | +0.1 | 177.11 | 157.47 | 160.81 |
| World Ex. US (1847) | 177.11 | +0.1 | 171.96 | 116.67 | 148.46 | 171.40 | +0.1 | 2.82 | 178.94 | 171.85 | 116.67 | 148.37 | 171.59 | +0.1 | 2.82 | 178.94 | 171.85 | 116.67 | 148.37 | 171.59 | +0.1 | 177.11 | 157.47 | 160.81 |
| World Ex. US (1847) | 177.11 | +0.1 | 171.96 | 116.67 | 148.46 | 171.40 | +0.1 | 2.82 | 178.94 | 171.85 | 116.67 | 148.37 | 171.59 | +0.1 | 2.82 | 178.94 | 171.85 | 116.67 | 148.37 | 171.59 | +0.1 | 177.11 | 157.47 | 160.81 |
| World Ex. US (1847) | 177.11 | +0.1 | 171.96 | 116.67 | 148.46 | 171.40 | +0.1 | 2.82 | 178.94 | 171.85 | 116.67 | 148.37 | 171.59 | +0.1 | 2.82 | 178.94 | 171.85 | 116.67 | 148.37 | 171.59 | +0.1 | 177.11 | 157.47 | 160.81 |
| World Ex. US (1847) | 177.11 | +0.1 | 171.96 | 116.67 | 148.46 | 171.40 | +0.1 | 2.82 | 178.94 | 171.85 | 116.67 | 148.37 | 171.59 | +0.1 | 2.82 | 178.94 | 171.85 | 116.67 | 148.37 | 171.59 | +0.1 | 177.11 | 157.47 | 160.81 |
| World Ex. US (1847) | 177.11 | +0.1 | 171.96 | 116.67 | 148.46 | 171.40 | +0.1 | 2.82 | 178.94 | 171.85 | 116.67 | 148.37 | 171.59 | +0.1 | 2.82 | 178.94 | 171.85 | 116.67 | 148.37 | 171.59 | +0.1 | 177.11 | 157.47 | 160.81 |
| World Ex. US (1847) | 177.11 | +0.1 | 171.96 | 116.67 | 148.46 | 171.40 | +0.1 | 2.82 | 178.94 | 171.85 | 116.67 | 148.37 | 171.59 | +0.1 | 2.82 | 178.94 | 171.85 | 116.67 | 148.37 | 171.59 | +0.1 | 177.11 | 157.47 | 160.81 |
| World Ex. US (1847) | 177.11 | +0.1 | 171.96 | | | | | | | | | | | | | | | | | | | | | |